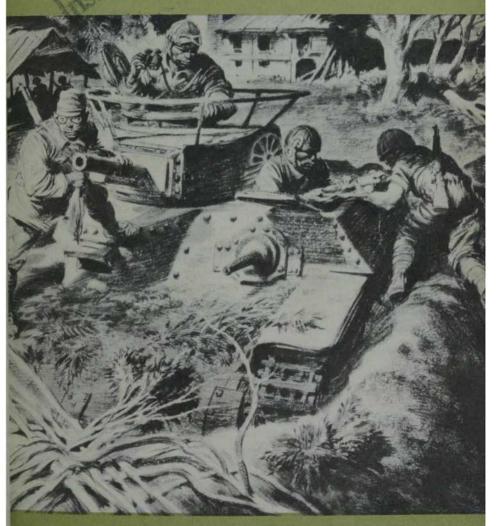
Intelligence Bulletin Syoung 1945



MILITARY INTELLIGENCE DIVISION . WAR DEPARTMENT . WASHINGTON D. C.

FOR USE OF MILITARY PERSONNEL ONLY . . NOT TO BE PUBLISHED

Have You Learned A Lesson About The Enemy?

The Intelligence Bulletin is anxious to obtain contributions from units and individuals, especially intelligence agencies, for publication. Articles that present lessons about enemy tactics, techniques, and matériel are particularly desired, and when it is consistent with security, credit will be given to the contributing agency or unit. Contributions may be sent directly to the Supervisor of Reports, Military Intelligence Service, War Department, Washington 25, D. C.

Readers are urged to comment on the use they are making of this publication and to forward suggestions for future issues. Reproduction of material published herein is encouraged, provided that (1) the source is stated, (2) the classification is not lowered, and (3) one copy of the publication in which the material is reproduced is forwarded to the Military Intelligence Service.

Requests for additional copies of the *Intelligence Bulletin* should be made through channels.

Notice

All material in Volumes I and II and Numbers 1, 2 and 3 of Volume III of the *Intelligence Bulletin* (September 1942 through November 1944) has been reclassified by authority of the A. C. of S. G-2, War Department, and is now unrestricted.

VOL. III NO. 10

JUNE 1945

INTELLIGENCE BULLETIN



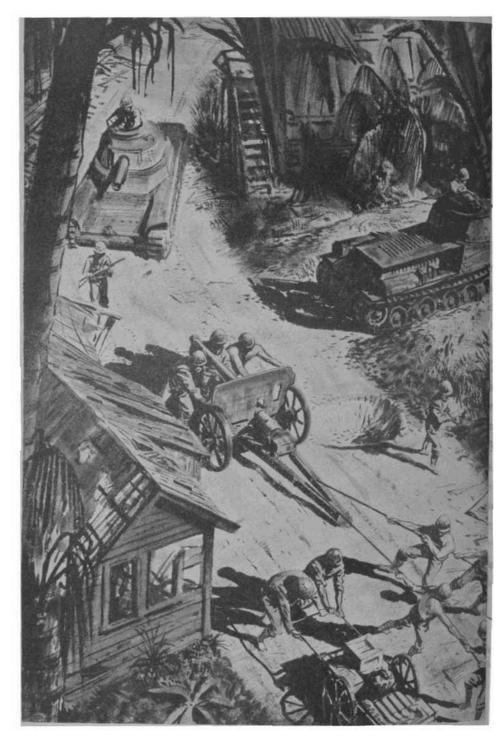
MILITARY INTELLIGENCE DIVISION WAR DEPARTMENT . WASHINGTON, D. C.

DISTRIBUTION:

AAF (30); AGF (35); ASF (2); T of Opns (200) except IB (1,000); Base Comds (10); Island Comds (10); Depts (10); Arm & Sv Bd (2); Def Comd (10); Tech Sv (10) except QMG (65); CWS (12); SvC (10); Area A SvC (10); HD (10); PC&S (1); SEPE (200); HRPE (6); Repl Dep (65); Gen & Sp Sv Sch (100); USMA (100); ROTC (3); UTC (30); RTC (150); Ord Dist (10); A (10); CHQ (10); D (2); B (2); R (2); Bn (2); C (2); AF (2); W (2); G (2); S (2); F (2).

TABLE OF CONTENTS

JAPAN	Page
JAP DEFENSE OF A TOWN—Tanks Join the Banzai Charge	1
"THE OFFICERS ARE GETTING KNOCKED OFF"	6
JAPANESE FIELD ARTILLERY METHODS	8
MINEFIELD PATTERNS IN THE DEFENSE OF IWO JIMA	15
KEMPEI—The Japanese Military Police	22
CLOSE COMBAT WITH TANKS	26
THE NEW JUKI	32
In Brief	35
Jap Tactics—Australian Countermeasures	35
Machine-Gun Tricks	36
Jap Rifle Technique	37
Sock Booby Trap	38
Radio Deception	38
Fruit-Can Booby Trap	39
Burning Grass	40 40
Jap Tenacity	41
Tank Ambush in Burma	42
Improvised Incendiary Grenade	42
GERMANY	
"WHY WE LOST"—A Post Mortem by a German Commander	46
	52
TACTICS OF A GERMAN PATROL	-
General Situation	52 53
Conclusion	56
CONCRETE STICK HAND GRENADE	57
In Brief	60
Riegelmines Under Corduroy Roads	62
Add Booby Traps	62
"To See Ourselves——"	62 63
Sniper Score	03
United Nations	
SOVIET INFILTRATION UNITS IN MOUNTAIN WARFARE	- 69
Cover Illustration—Japanese tanks used in the defense of San Manuel, Luzon, were moved in and out of prepared revetments, where they could be employed as pillboxes	





JAP DEFENSE OF A TOWN

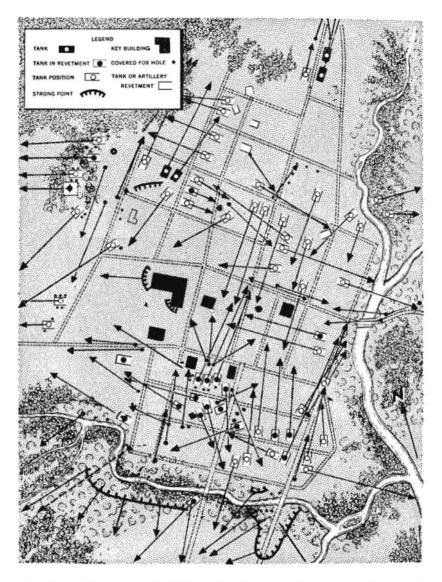
Tanks Join the Banzai Charge

During the advance of U. S. Sixth Army units through the central plain of Luzon, much of the scattered enemy resistance was encountered in the small towns and barrios that dot the highways and road junctions of that corridor. Here, for the first time in the Pacific, American soldiers fought against Jap troops who were liberally supported by tanks.

This was particularly true along the left flank of the U. S. advance, where enemy tanks and infantry held the main road intersections to cover the route of withdrawal of enemy troops from the south into the northern hills of Luzon.

Throughout these operations the enemy delaying forces would hold key road junctions until they were nearly surrounded, and then would fall back during the night. However, when U. S. troops reached the village of San Manuel—known to be the operating base of a Jap tank brigade—they discovered that here the enemy determined to make a strong stand to deny the village to our troops and inflict the maximum possible casualties upon our attacking force.

At night the tank motors could be heard as the tanks moved from one emplacement to another, while foot troops moved to new strongpoints to meet the next day's anticipated attack.



Sketch of San Manuel Village showing the Japanese positions and fields of fire. Only key buildings have been indicated, and the ridge to the northwest of the town is not shown.

A typical Philippine town, San Manuel was fortified by a force of from 800 to 1,000 Japanese which included an infantry battalion, an artillery battalion, and miscellaneous troops from a Jap tank division. Besides approximately 40 medium and five light tanks, the Jap defenders had six 105-mm howitzers with prime movers, seven 75-mm cannon, two 47-mm antitank guns, and many machine guns and mortars. Roughly square in shape, the town was bordered on the east by a steepbanked stream, and on the north and south by drainage ditches. A spur ridge abutted on the northwest corner of the town, but all approaches to the town were flat and open. This was particularly so on the west and southwest, where excellent fields of fire and observation existed. The perimeter of the town was marked by frequent clumps of vegetation.

Although the possession of San Manuel was of little strategic value, the Jap defense of the town was well conceived, tactically. The strongest defenses—established in depth—were located on the western and southern portions of the perimeter, although positions had been prepared for an all-around defense of the town. Field works were built for the artillery, but particularly significant were the positions built to permit the use of tanks as pillboxes. Emplacements just large enough to hold a medium tank had been dug throughout the village. Three sides were revetted to a height of about 30 inches, while the fourth side was left open to permit the tank to be moved in or out of the position. When the tank was in position, only the turret was exposed. The artillery pieces were emplaced in similar bunkers. These emplacements—approximately 75 in all had been prepared for some time, and formed the backbone of the Jap defense. A machine gun and individual rifle pits supported each of the tank and artillery emplacements. All were well concealed, and most of the rifle pits were covered, as were the personnel shelters and dugouts in the area. All open areas

and empty building sites were well covered by fire. About onethird of the tanks were held as a mobile reserve in the southern part of the village. The only outstanding defect in the defensive plan was the failure of the Japanese to defend the spur ridge to the northwest with more than just the outpost platoon which occupied that terrain.

The San Manuel Defense Force, which was under the command of a Jap major general, had orders to defend the town to the death. This was done, with the usual suicidal tenacity made even more deadly by excellent fire discipline.

As our troops approached the village initially from the north and southwest, they drove in an outpost and were able to advance approximately 50 yards within the town before they were stopped by intense rifle and machine-gun cross fire. A counterattack supported by tanks then pushed the U. S. troops from the village.

On the second day, the U. S. infantrymen secured another foothold in the village. From then on, they fought for 4 days from house to house and emplacement to emplacement, gradually driving the Jap defenders toward the southern edge of the town. The enemy defense was very fluid, the foot troops moving about within the town to meet anticipated attacks. Except for sniping, the Japs would hold their fire until a worthwhile target was within 50 to 100 yards of their positions. When they expected harassing artillery fire, they would withdraw to cover in the northeast and southeast corners of the village.

During the daytime the defending Japanese either remained in position or kept their movements within the perimeter, completely concealed from observation. But at night the tank motors could be heard as the tanks moved from one emplacement to another, while the foot troops moved to new strongpoints to meet the next day's anticipated attack.

Infiltrating patrols were active in harassing the American forward positions; and suicide squads, equipped with lunge mines and magnetic mines, were a constant threat to the U. S. tanks, a number of which were destroyed.

Having been driven into the southern defenses of the village, the Japs on the last night reverted to form and launched a desperate *Banzai* attack. After much preliminary maneuvering, 13 tanks, each supported closely by infantry, launched an attack in waves of three. The combined fire of .50-caliber machine guns, bazookas, antitank guns, and artillery destroyed ten tanks, broke up the assault, and forced the survivors to withdraw. With this attack all major resistance ended, and the following day the American infantrymen mopped up and secured the village of San Manuel.





The Intelligence Bulletin's debt to its readers continues to grow. This month an enlisted man who has been fighting in the Philippines contributes several helpful observations about the Japanese and the problems of U. S. units who are combating them.

"The officers are getting knocked off!"

"April 16
"The Philippines

"Dear Sirs:

"Right now I'm convalescing from a wound. I'm in the —th Divvy. At present they're battling for a strong objective. The officers up there are getting knocked off faster than they can be replaced. That's the reason for my letter—I would like to make a comment on why they're being cut down so fast:

- "1. Many use the 'point' system in full view of the enemy.
- "2. They always place themselves third or fourth. By now the Nips know that our leaders follow the scouts. The scouts are seldom fired upon.

- "3. They never fully orient the G. I. on what's what. Probably they don't get the same from higher-ups. And thus a lot of talking goes on during the patrol.
- "4. Some still wear their bars. We still have to address them by rank except when in contact with the enemy. But the boys are so darn used to it, the change doesn't click in just a matter of seconds.

"In our company we have had ten different officers. Not one is an officer who originally started the campaign with us. We have had four different C. O.'s. We have had five noncoms commissioned; out of these five, only one is left in the lines. In the whole company now we have two officers.

"The Japs have a knack for getting the leader. He's zeroed in just as soon as the patrol is spotted, because of the aforementioned reasons.

"It's happening in all the outfits. The Jap officers are pretty damn smart. Without them, the Jap G. I. isn't worth a damn. They have the best fire discipline anyone could expect of an army.

"They seldom fire on small patrols. But us, we open fire with a machine gun on one Jap. I've seen that happen. When we take an objective, after running the Nips out, we take it for granted they're not coming back. Well, one time they came back with a strong counterattack supported by machine guns which had our automatics zeroed in. We were saved by mortars. A whole machine-gun crew (ours) was knocked out—one killed, three wounded.

"The Japs undoubtedly watched us digging in. We should have changed our machine-gun positions during the night.

"In my opinion there is a lot to be taught before we start hitting Tokyo.

"A G. I."



JAPANESE FIELD ARTILLERY METHODS



The Japanese Army has neglected to keep pace with other major armies in the development of modern artillery techniques. An insight to present Japanese field artillery methods is given here. However, this is no guarantee that the Japs will not improve their techniques in future operations.

Although field artillery support often has been a deciding factor in the outcome of a major engagement, thus far in World War II the Japanese have failed to take advantage of the full potentialities of this fighting arm. At best, they have resorted to World War I techniques, for in the past 3 years Japanese artillerymen who have opposed U. S. troops have not demonstrated an ability to mass fires rapidly on new targets.

It is true that, when given the time and opportunity to use their own methods, the Japanese have been able to deliver accurate fire with single guns, sections, or batteries. And, under the same conditions, they recently have proved themselves capable of delivering concentrated fire against such predetermined targets as beaches, or areas in front of long-established defenses. However, such targets are registered upon by each battery prior to an anticipated attack, and, once the battle is joined, fire control is decentralized to each battery—a battery usually firing in direct support of an infantry battalion.

This antiquated technique emphasizes the principle difference between U. S. and Japanese field artillery methods. To date there has been no evidence that the Japanese make use of the fire-direction center—a central command post which gives fire commands to all batteries of a battalion—for rapid registration of massed artillery units upon targets of opportunity.

The fact that they have been unable to use their field artillery in mass in a mobile situation may have influenced the Japanese to adopt a peculiar technique: The Japanese often detach a gun or a section from a battery and use it as a roving unit separated widely from other guns or sections. Frequently guns of different caliber are mixed within battalions, batteries, or sections, and, since most Japanese field artillery originally was horse-drawn, artillery units encountered in jungles and islands far from the Empire have been found without organic transportation for their guns. The recent enemy tendency, how-

ever, has been to rely more and more upon trucks and tractors as artillery transport.

Although the Japanese often have selected battery positions that are conventional by our standard, the frequent splitting of batteries sometimes emplaces sections as much as 300 to 1,000 yards apart. It is not unusual for the guns of these sections to be emplaced in depth within the section position. Although this dispersion of pieces helps to conceal and protect the guns, it further hinders rapid registration for mass fire. It also has led to field guns being emplaced in unusual positions—in caves and pillboxes, on ridge crests, and, during the battle for Manila, in the upper stories of buildings.

To all appearances the Japanese use observed fire methods almost exclusively, unobserved fire being used on the comparatively rare occasions when guns have been ranged previously by observation. There are indications that single batteries or sections may use a forward-observer method similar to U. S. practice, but, although experiments with air observation have been reported, there have been no known attempts by the Japs to conduct fire from planes.

A common Japanese practice, particularly during a defensive or static situation, has been the use of bilateral observation with an observation post established on the gun-target line, and one established to each flank. This permits the center observation post to adjust for deflection, while the flank observation posts adjust for range. This method is slow, but accurate. Single observation posts also are used—preferably situated on the gun-target line, as close as possible to the battery or section. Conventional observation techniques are used, but under the Japanese system only one battery at a time can be registered on a target.

With the exception of such instances as counter-landing fire and the fire delivered in support of a land defense line, as was done near Naha city on Okinawa Island—the Japanese usually fire only a few guns at a time in any one sector. Even in sectors occupied by an artillery battalion or regiment, fire may be delivered by no more than a single gun or section firing at any one time. Generally, volleys are not fired; instead, the guns of one section will salvo at a given rate. On occasion they may fire only one round each, and then cease fire for several minutes while other sections fire salvos in turn. Thus a steady harassing fire is kept up. Also, it is not unusual for the guns of a single battery to engage two or more targets at the same time—different fire missions having been allotted to different guns or sections. By our standards, relatively few rounds are expended on any one target, but those that are fired usually are accurate.

It is not unusual for the Japanese to attempt to keep gun positions concealed by withholding fire until the moment U. S. guns are fired. This common ruse also tends to mislead U. S. infantry troops into believing their own shells are falling within their own lines. The Japanese also may be expected to fire harassing missions by one battery to conceal the fact that another battery is registering simultaneously on a new target.

If Japanese artillery is to be used in close support of infantry during night operations, the guns usually will be registered during the preceding afternoon—unless, of course, range data has been determined previously by observed fire. Such support fire in advance of small-scale night of early dawn attacks may be expected to commence from 45 minutes to 1 hour before the assault.

Counterbattery fire apparently is undertaken by the first battery or section to locate the enemy's artillery positions. Because it is usually observed fire, it may be counted upon to be accurate during daylight—a typical counterbattery mission consisting of from 10 to 15 minutes of salvo fire. There has been

no indication that the Japanese reserve some guns solely for counterbattery missions. Counterbattery at night usually is based upon previous daylight observation.

In the Japanese artillery regiment or battalion, fire control duties during a battle fall principally upon the battery commanders. Control by the regimental or battalion commander is exercised before the engagement, and extends only to the giving of such orders as the fire support plan, method of observation, location of battery positions, and the method of displacement. Theoretically, the Japanese artillery battalion, like its U. S. equivalent, supports an infantry regiment in battle. But, because the Japanese do not make use of the fire-direction center, Japanese artillery support generally breaks down to the point where one battery supports one infantry battalion, and is not readily available to join a companion battery in rapidly adjusted mass fire upon a single target. Instead, each battery, or even each section, has its own observer and is concerned only with fire on targets appearing within its assigned sector.

Because the fire control of each battery is decentralized in this manner, the commander of a Japanese artillery battalion or regiment, in order to mass the fire of all his batteries on one target, must register each of his batteries independently on the target before firing for effect. This method is antiquated and slow, and eliminates the possibility of delivering mass fire by surprise.

By contrast, U. S. artillery technique—which encompasses modern artillery survey methods, the use of meteorological data, and good communications from observers and batteries to a central fire-direction center—permits the artillery battalion commander to register one gun or battery on a target and then, by means of computation, to issue fire orders to all his batteries. This method enables the fire of an entire battalion—or of an entire regiment or corps—to be delivered quickly by surprise in mass upon a single target.

Whereas liaison between U. S. infantry units and their supporting artillery is most complete, relations between Japanese infantry and artillery are not always harmonious. Because Japanese Army doctrine has placed so much emphasis upon the role of the individual infantryman and his bayonet, infantry commanders often are inclined to disregard the value of their artillery, or try to force their ideas of artillery employment upon their supporting arm. An enemy source indicates that artillery-infantry liaison in some Jap units consists of a "spare" junior artillery officer being sent to the infantry regimental command post, while noncoms are sent to each infantry battalion to represent their battery commanders.

Although Japanese artillery technique thus far has lagged behind our own methods, it would be wrong to underestimate the Jap artilleryman. When left to the efficient application of his own methods, he is capable of delivering accurate and deadly fire. Although Japanese use of massed fire has been limited to date, and restricted by out-moded techniques, it is entirely possible for the enemy to improve his methods, and, in the future, to adopt more modern practices.



Map of Iwo Jima—the dark areas indicate minefields which formed one of the strongest mine defense systems encountered in the Pacific.

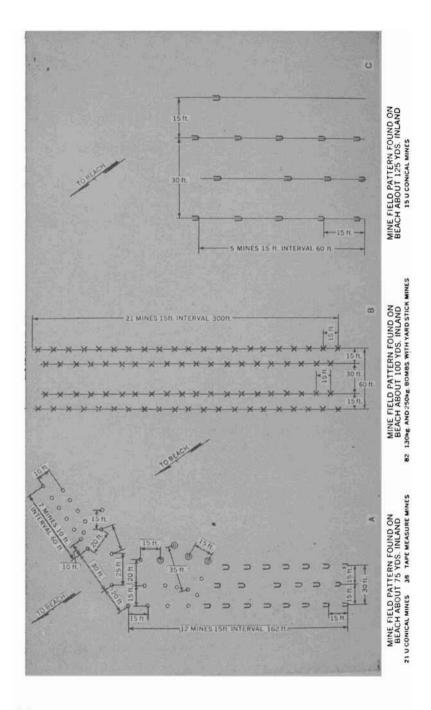


MINEFIELD PATTERNS IN THE DEFENSE OF IWO JIMA

When U. S. Marines stormed ashore on Iwo Jima, it was soon evident that this small island contained the strongest minefield defense yet encountered in the Pacific. The Japanese, who had anticipated the attack, had made extensive preparations to meet the assault. From the nature and condition of the minefields, it was clear that they were planned with much thought and permanently installed.

A study of the Japanese minefield technique used on Iwo indicates that in the last year the enemy has made substantial progress in the use of this method of modern warfare. It also discloses some significant minefield patterns and trends that may well be considered as a standard for other Jap minefields which may be encountered under similar circumstances in the future.

The most heavily mined areas on Iwo were, quite naturally, those adjacent to the southeast and southwest beaches—the logical landing sites. Parallel to the entire length of the southeast beach was buried a double row of 500-pound aerial bombs. To each bomb a yardstick mine had been lashed to act as a booster charge should its pressure fuze be actuated. This bombyardstick combination seemed to be a favorite with the defenders, since it was used extensively throughout the island.



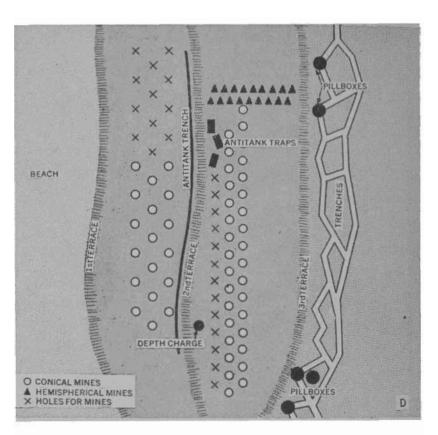
A typical minefield of this type is diagramed in pattern B on page 16. In this case four rows of bombs were planted to form a minefield 60 feet deep and 300 feet long. The bombs within each row were spaced at 15-foot intervals. In adjacent rows, the bombs were staggered so as to cover the intervals between the mines of the neighboring rows.

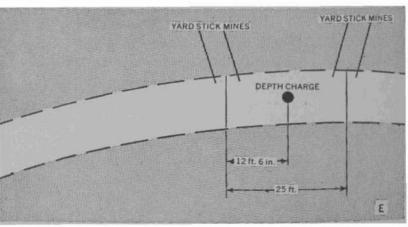
On the southwest beaches, the only mines found were the standard hemispherical antiboat mines. However, the area immediately adjacent to, and the roads and logical routes from the beach, in general were thoroughly mined. Besides the bomb-yardstick combination, nearly all of the standard Japanese land mines were found in use in this area. Among these were the hemispherical antiboat mine, the conical antiboat mine, the yardstick mine, the tape-measure mine, the pottery mine, the magnetic antitank mine, and numerous wooden box mines—some improvised and some prefabricated.

Patterns A and C on page 16 are typical of minefields laid with the conical mines. Although it was by no means standard, the Japs seemed to have had a tendency to lay many of these mines at 15-foot intervals in rows, 15 feet between adjacent rows. The staggered pattern of the mines of one row covering the intervals in another is again repeated. However, in pattern A, the regularity of the minelaying is discontinued when tapemeasure mines, which contain a smaller explosive charge, are used to finish the upper portion of the field.

In spite of the more regular minefields found, not all of the mines laid on Iwo conformed to a pattern. In many instances, mines were laid haphazardly with no pattern whatsoever. Roads were liable to be mined in spots—a typical case is illustrated in pattern E on page 18. Here an antisubmarine depth charge was planted in the road and fixed for pressure detonating. Yardstick mines were planted in the shoulders of the road.

Generally speaking, the mines on Iwo Jima were well buried



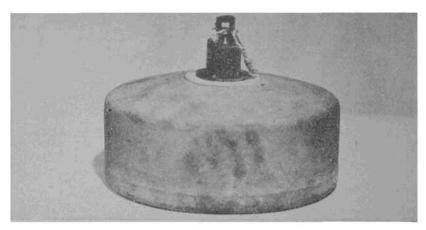


or concealed. Because the metallic soil prevented the use of standard mine detectors, it was necessary to construct passages through many fields by hand probing and removal methods. However, for the first time with any consistency the Japanese defenders had covered many of their minefields with protective fields of fire. A minefield covered in this manner is illustrated in pattern D on page 18. This defense was located on a portion of the southwest beach.

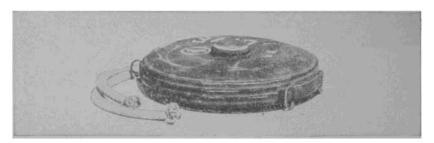
Of further significance is the fact that the Japanese used antipersonnel minefields for the first time in the Central Pacific. These minefields, constructed in irregular patterns, consisted of pottery mines fixed for detonation by pressure or tripwire. The mines were scattered in pairs, each pair from 6 to 8 feet apart. Many of these mine pairs were connected with trip wires of green gut stretched above ground. Antipersonnel mines of this type also were found in abandoned trenches.

To guard against the possibility of their own troops blundering into one of their own minefields, the Japanese garrison had marked plainly the extent of some of the fields. On the edge of some minefields, stakes had been driven at 35-yard intervals. Other fields were marked by a single strand of low wire, while in still another instance twigs had been stuck into the earth to mark the location of individual buried mines.

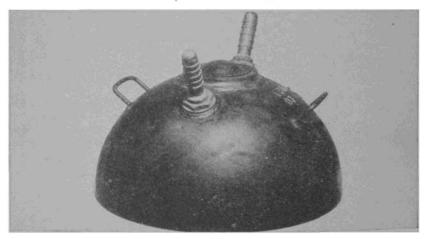
The standard factory-made land mines found on Iwo Jima are illustrated on pages 20 and 21.



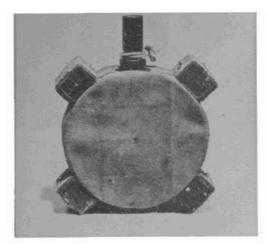
Pottery mine.



Tape-measure mine.



Hemispherical antiboat mine.



(Left) Magnetic armorpiercing mine.



(Right) Conical antiboat mine.



Yardstick mine.



KEMPEI

THE JAPANESE MILITARY POLICE

Few American soldiers fighting in the Pacific are aware of the position of military police in the Japanese military system. Actually the *Kempei*—which is Jap for "Military Police"—is a semi-independent organization one of whose most important functions is to provide counterintelligence for the Japanese intelligence organization.

The Kempei is a separate combat branch of the Japanese Army and operates under the command of a lieutenant general, who holds the post of Provost Marshal General. Charged with the main responsibility for the suppression of espionage and sabotage by foreign agents, and with the responsibility for coordinating civil and military security measures, the Kempei has established a police network throughout the Jap-held world.

Actually, the Japanese Military Police is composed of two parts—the Field Military Police and the Regular Military Police. Each has its own auxiliary branch of personnel, who act in a subordinate capacity as assistants.

The Field Military Police, who are organized only in wartime, are the upper strata of the *Kempei* organization. They are recruited chiefly from Japanese Foreign Office personnel, and Japanese embassy and consular police overseas. Most Field MP's are officers and warrant officers, and are better paid than regular MP's. They may wear civilian clothes or disguises,

which, with the necessary identification papers, permit them to move freely among native populations. Field MP's are assisted by auxiliary personnel recruited from civilian employees of the Special Service Organization—the intelligence collecting espionage branch of the Japanese G-2.

The Field Military Police may be regarded as the advance agents of the Kempei. Undoubtedly, many of these agents had operated in Far Eastern countries long before the arrival of invading Japanese troops. The Field MP's and the espionage agents of the Special Service Organization work in close coordination, and an MP section often is assigned to a Special Service Organization headquarters. Although the Field MP's are concerned primarily with counterintelligence operations, their work often overlaps that of the intelligence-collecting Special Service men. This overlap makes it possible to check the interpretation and evaluation of information, and it ensures that all phases of intelligence are covered by one group or the other. While working with the Special Service men, the Field MP's seem to be concerned chiefly with operations conducted among the local natives.

After an area has been occupied by the Japanese Army, the Field MP's continue, and undoubtedly expand, their counter-intelligence activities among the population of the occupied country. Their authority also extends over the Jap troops, not only in counterintelligence and security matters, but in the normal duties which generally devolve upon MP's. Combat intelligence work also is engaged in, mainly through the use of native agents and native reconnaissance patrols. In this way, MP's frequently are able to secure information of operational value. Such information is supposed to be forwarded to the organization primarily concerned.

The Regular Military Police comprise most of the MP's on duty in Jap-occupied territory under military jurisdiction.

Their basic duties are very similar to those of our own MP's, and, in general, they do not take over from the Field MP's until the area concerned has been placed officially under garrison regulations. Although their duties are theoretically confined to police work, they are a combat arm of service. They also have an auxiliary corps, which provides deputies who have the same responsibilities and authority as the regular MP's.

In all areas in which the *Kempei* operates, the authority of the Regular and Field MP's exceeds that of the civilian police. Similarly, the Field MP's exceed the Regulars in authority.

The main duties of both branches of the *Kempei* are the maintenance of military discipline, the enforcement of security, the protection of vital military zones, the execution of conscription laws, the detection of crimes committed by Army personnel, the issue of travel permits, the suppression of subversive rumors, and the detection and arrest of fifth columnists. Such work as traffic control and the guarding of essential installations is carried out as an occasional duty, but usually line troops are used.

In combat zones and occupied areas, certain other duties have been assigned to the *Kempei*. These duties include the requisitioning of native foods and supplies, the recruiting of native labor, and the organization of native counterespionage. On occasion, MP units have been charged with maintaining espionage nets behind enemy lines.

Military Police control over native populations and foreign residents is exercised only so far as actual policing is concerned. However, such control includes the investigation of political sympathies, individual character and loyalty, suspicious acts, subversive activities, and mail censorship. Native agents, Jap civilian employees, and the intelligence personnel of other agencies assist the *Kempei* in this work. Files of information on all suspected persons are kept at MP headquarters,

and a double check on persons under suspicion is kept through liaison with the Special Service Organization and the local army headquarters.

Practically all members of the *Kempei* are volunteers—both commissioned and enlisted personnel—and the standards for admission to the organization are high. This is particularly true of the educational requirements. Since there are several different grades of MP's within the organization, the requirements for assignment differ, as do the limits to which members of each grade may advance.

A Jap who has been accepted for MP duty receives further education in the *Kempei* schools. An enemy source indicates that in one such school the curriculum included such subjects as law, the manual of arms, fencing, horsemanship, unarmed combat, languages, espionage, and counterespionage. • Specific attention was given in classrooms to such things as invisible writing, shadowing, methods of entering and leaving buildings, and similar tricks of the detective's trade.

This policy of selection and education has produced in the Jap MP an individual of much higher caliber than the average Japanese soldier. But though the I. Q. of *Kempei* men is higher than that of the rest of the Jap Army, it in no way has decreased their cruelty, or their devotion to the Emperor, as the residents of Jap-occupied territory will certify.



CLOSE COMBAT WITH TANKS

The fire power and comparative invulnerability of U. S. tanks has driven the Japanese Army to rely more and more upon the suicide attack by individual Jap soldiers as a means of countering U. S. armor.

To all appearances, this tactic originated as a field expedient of frustrated Japanese troops who were among the first to meet the M-4 tank in jungle and atoll fighting. However, there now is evidence that suicide antitank fighting has attracted the attention of the Imperial General Headquarters in Tokyo to such an extent that so-called "close-quarter combat tactics," as a principle means of combating tanks, may be standardized throughout the Japanese Army.

Several months ago a high-ranking committee of the Imperial Headquarters met under the chairmanship of General Ushiroku, Assistant Chief of Staff and second most important man in the Japanese Army, "to formulate a technique for the training of all operational armies in the methods of destroying enemy tanks by spirited, close-quarter combat, using explosives". Recent experiences of tank men in the Philippines and Southeast Asia, the advent of new suicide antitank explosives, and a large quantity of enemy information on recent Jap antitank training, make it expedient for tank men—and the infantry who must support them—to review this trend of Japanese tactics.

An organized method of close-quarter combat has been outlined by the Japanese Army Engineer School, which advocates coordinated attacks by trained close-quarter combat units. According to one source, such a unit will be composed of from six to nine men and a leader, and will be organized into three teams of two or three men each—a so-called neutralizing team, a track-attacking team, and a demolition team.

The Jap Engineer School has recommended that, besides a "cool and resolute mind with a firm belief in victory", the close-combat soldier must be familiar with the characteristics and tactical employment of U. S. and British tanks. He must also know how to prepare and use his tank fighting weapons. Wherever possible, he must select assault positions in advance of anticipated tank attacks, but initiative in "taking advantage of shortcomings in the enemy situation" is also stressed.

Before engaging a tank, a Jap close-combat unit leader deploys his men in depth across as wide a front as possible. A typical disposition is an inverted "V" with the neutralization team facing an oncoming tank, the track-attacking team located to the right and rear, and the demolition team to the left rear. The unit leader takes his position in the center of this formation. A normal distance between groups is 30 yards.

A close-combat unit of this type opens its attack with the neutralizing team trying to impair the visibility of the tank crew. This may be attempted with smoke or flame, or both. The most commonly known Jap weapons of this type are the frangible smoke grenade, smoke pots, and Molotov cocktails. Against flame-throwing tanks, the use of smoke grenades fired from a grenade discharger is recommended. One enemy source makes reference to a "hand-thrown smoke tube" which will break when thrown onto the tank at close range, allowing the smoke chemical to adhere to the tank and envelop it. Flame throwers also are recommended. By such tactics, the neutraliz-



Diagramatic sketch of a typical attack position for a close-combat units as advocated by the Japanese Engineer School.

ing team tries to blind the tank gunners and cause the tank driver to slacken speed. The neutralizing team also may throw conical hand mines¹ against the tank periscopes and guns, in an attempt to put them out of action.

At this point the track-attacking team approaches and, taking advantage of any slackening of speed and offensive reaction from the tank, will try to destroy one of the tank tracks. Usually one track only will be attacked, its destruction being sufficient to immobilize the vehicle. For this purpose the track-attacking team will be armed with explosives lashed to the end of a pole. Whereas any large pole charge can be used, the most suitable are standard pressure-detonated antitank mines—such as the model 93 "tape-measure" mine, the Model 3 "ceramic" mine, and the so-called "yardstick" mine. Any of these can be lashed easily to a pole.

The Japanese anticipate that once a U. S. tank has been stopped, it may still continue to fire until it has been destroyed and the crew killed. This is the mission of the demolition team.

As soon as the tank has been crippled, the demolition team moves in to make the kill. Specifically, its mission is to destroy the engine and to kill the tank crew. For this work the Japanese recently have developed a number of demolitions, most of them designed around the hollow-charge explosive principle of piercing armor plate. Some of these—for example, the "lunge mine"—are pure suicide weapons. Other weapons, such as satchel charges, and the familiar Model 99 "magnetic" mine are actuated by delay igniters.

Since the advent of the lunge mine and the conical hand mine in Jap antitank fighting in the Philippines, there has been accumulating evidence of Jap developments in other hollow-charge antitank weapons designed specifically for close-combat units.

^{&#}x27;See Intelligence Bulletin, Vol. III, No. 7, pp. 68-69.

² See Intelligence Bulletin, Vol. III, No. 7, pp. 64-65.

These are the 5-kilogram, hemispherical armor-piercing mine, and the 3-kilogram, cone-shaped armor-piercing charge.

The Japanese claim that the 5-kilogram, hemispherical armorpiercing mine is capable of penetrating 8 inches of armor plate. or of killing or injuring a tank crew by concussion alone. This charge resembles a small version of the hemispherical antiboat mine without the chemical horn detonators. It is actuated by the same type of delay fuze used in the Model 99 magnetic mine. According to the Jap Army Engineer School, demolition teams may use the 5-kilogram mine either as a pole charge or as a "suspension-type" mine. As a pole charge, the mine is lashed to a wooden handle so that it may be held or placed more easily against the side or top armor of the tank. When used as a suspension-type mine, the 5-kilogram mine is tied to the end of a rope, while a sandbag weight is tied to the other end. In this form the mine is used primarily in attacking the side armor of a tank. The demolition team soldier armed with a suspension mine approaches the tank, places the flat base of the mine against the side armor, and then slings the weighted rope across the top of the tank. The sandbag weight will then allow the mine to dangle against the tank side until the mine detonates.

The 3-kilogram, cone-shaped armor-piercing charge is reputed to be capable of penetrating armor 6 inches thick. This charge is built into a wire frame, and a circular wire grid is fastened to the bottom of the cone. This grid, which is larger in circumference than the base surface of the explosive, keeps the charge from tipping over when it is placed on the top or hung on the side armor of the tank. It is used in the same manner as the hemispherical mine.

Close-quarter antitank combat is hazardous, at best, but it is ineffective against tanks that operate with proper infantry or mutual support. The Japanese realize this, and specify that

close-quarter combat units should be aided by "fire directed to scatter the accompanying U. S. infantry and to force the tanks to close their vision ports". Every indication points toward the increased use of close-quarter combat units by the Japanese. A Jap infantry instructor, a Major Awajima, has summed up the Japanese predicament by saying, "Due to the recent strengthening of the enemy's tank armor and the difficulty of replenishing our supplies, it has become increasingly difficult for us to improve and increase our antitank weapons. Notwithstanding this difficulty, the intensity of antitank attacks should be increased. Regulations and reference books clearly explain the principles of close-quarter attack."



THE NEW JUKI

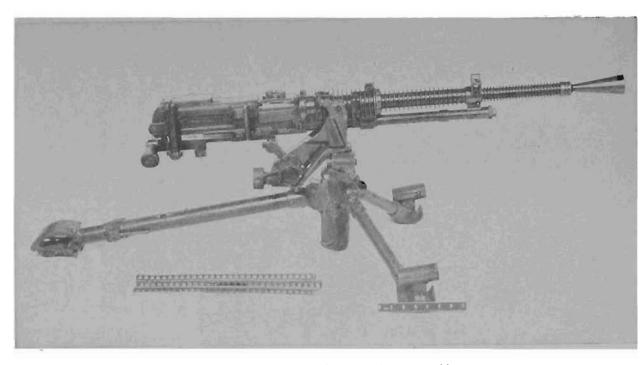
Weight Reduced by 52 Pounds

Soldiers who are familiar with the Juki—the rather cumbersome Model 92 (1932) standard heavy machine gun—will be interested to learn that the Japanese have produced a new, handier model of their heavy machine gun. The new weapon is designated the Model 01 (1941).

The outstanding features of the Model 01 are its removable barrel and the reduction made in weight over the Juki, for the Model 01 weighs nearly 50 percent less than the Model 92. The reduction in weight has been accomplished by a lightening of the weight of most component parts. In turn, reductions in the moving parts has produced a somewhat higher rate of fire than the Model 92's, but since the Model 01's barrel is shorter, it is believed that the newer gun has less range than the Model 92, which is practically a copy of the Model 3 (1914) Hotch-kiss-type heavy machine gun.

The new gun is gas-operated and air-cooled, but dispenses with the very heavy barrel jacket which permits the Model 92 to maintain a steady rate of fire without excessive heating. The introduction of the removable barrel is supposed to compensate for the loss of barrel jacket. However, it is estimated that trained crews should require approximately 1 minute to effect the barrel change, for the barrel lock is definitely not of the quick-release type.

Though the *Juki* takes both rimmed and rimless caliber 7.7-mm ammunition, the new Model 01 (for reasons best known



The new Model 01 (1941) Japanese heavy machine gun.

to the Japanese) takes only rimless ammunition. This ammunition is fed from the left side in the usual 30-round metal strips. Fire is controlled by a thumbpiece-trigger, but the thumbpiece does not also serve as the safety. The safety device consists of a lever on the left side of the receiver.

The Model Ol's tripod, though similar to that of its predecessor, is generally improved. It shows that consideration has been given to carefully calibrated indirect fire along fixed lines, if not for accurate searching fire. A telescopic sight may be fitted.

These figures compare the Model 01 and the Model 92:

	Model 01	$egin{array}{l} { m Model~92} \ (Juki) \end{array}$
Weight of tripod	36.3 pounds	61 pounds
Weight of gun	33.6 pounds	61 pounds
Total weight	69.9 pounds	122 pounds
Length without flash hider	38 inches	45 inches
Length of barrel	23.9 inches	29.5 inches
Total traverse	45 degrees	$33.5 \ degrees$

Only one sample of a Model 01 has so far been encountered. This one was found on Luzon. Though it was numbered "Serial 1", the weapon was a production job, and not just an experimental item hand-made by some arsenal. It is not known whether the Japanese have produced the Model 01 in any quantity, or whether they consider it superior enough to the Juki to warrant replacement of the latter in spite of deterioration of production facilities and of increasing need for artillery, antitank, antiaircraft, and armored vehicles.



IN BRIEF

JAP TACTICS—AUSTRALIAN COUNTERMEASURES

Australian troops have been fighting the Japs for a long time. They grubbed their way through the jungles of New Guinea in the early days of the Pacific war, and they still are down in the Southwest Pacific, handling the unpleasant task of cleaning out the Japs that have been isolated in that area. A few Australian observations about Jap tactics, and about some of the countermeasures the Aussies use, are reprinted here.

1. The Japanese approach march is invariably made along terrain features, such as a ridge, in close formation.

Countermeasure: Lay artillery, heavy weapons, and ambush along ridge and stream lines leading into positions.

2. First element or wave of a Japanese attack is a silent group armed with bayonets, hand grenades and wire cutters. This is followed by a noisy echelon, flanked by noise or machine guns.

Countermeasure: Always dig in deep enough at every bivouac. (One officer suggests occupying a dummy position during the day to deceive Jap observers, and move into real positions

after dark.) Patrol vigorously and well out in front. Don't be fooled by noises. Make a point of seeing the enemy. Maintain silence and blackout.

3. Japanese infiltrate through our lines. They expect and intend that we will fall back.

Countermeasure: Don't fall back. Hold your line. If you fall back there will be no opportunity to reorganize your line. The Japanese may be in behind us, but we are also in behind them. When they fail to demoralize us, they don't know what to do next.

4. Japs place snipers and machine guns in trees and cover, and leave them there while we pass.

Countermeasure: Do the same, only better, and don't fall back or be demoralized by sniping. Keep a lookout to observe the enemy. He won't fire until he is on your flank or rear.

5. Japs hold to low spots and strips of jungle.

Countermeasure: Put plenty of artillery and heavy weapons on these jungle strips between ridges before moving into them. It is a mistake to rush over a grassy strip into a jungle draw.

6. Japs fire high.

Countermeasure: Stay down. Bullet marks on trees are mostly $2\frac{1}{2}$ feet above ground.

7. Japs like hand-to-hand fighting with bayonets.

Countermeasure: Give it to them. They only like it when their opponents don't fight back.

8. Japs attack on a narrow front.

Countermeasure: When you have a target for heavy weapons use plenty of ammunition.

MACHINE-GUN TRICKS

A battalion commander in the Philippines has reported a machine-gun trick that the Japs recently used against his troops. The Jap machine gunners would emplace their guns on the crest or forward slope of a hill in such a way that the fire was

directed into the U. S. perimeter. When the Americans reacted with artillery, the Jap gunners retired to deep foxholes on the reverse slope of the hill, but continued to operate their guns by means of long strings tied from the triggers to the foxholes. On other occasions, the gunners would pin the U. S. soldiers in their foxholes, and then raise their fire enough to allow the Jap infrantry to creep up on the perimeter. In this way they took astute advantage of the tendency a man has to keep his head down as long as lead is flying by overhead.



JAP RIFLE TECHNIQUE

The fire technique of some Jap riflemen has been reported by an infantry lieutenant who has fought on Guam and Leyte. He has observed that when the Japanese soldier entrenched himself in a foxhole, the Jap zeroed his rifle on a spot—such as a trail intersection or a patch leading out of the bush into a clearing—which was likely to be traversed by U. S. soldiers.

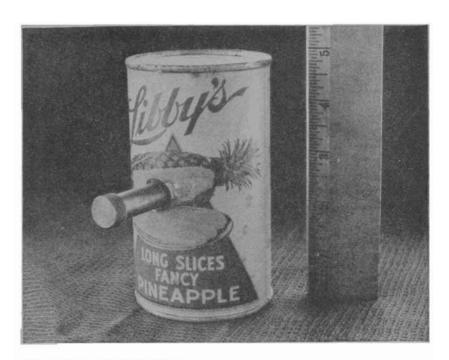
It is the lieutenant's opinion that the Jap did this because his foxhole was so small, and so well camouflaged, that only a small hole was left through which his rifle could be sighted. The Japanese soldier would wait patiently for an American to walk in front of his sights. For this reason, the lieutenant said, it was dangerous for a man to run out and try to aid a wounded soldier. In one sector four of the lieutenant's men were shot in this manner when trying to aid a wounded comrade.

SOCK BOOBY TRAP

A U. S. Army captain returned from Saipan has told of a clever booby trap used by the Japanese to take advantage of souvenir-hunting soldiers. Some of the Japs on Saipan apparently carried their personal possessions around in a sock, and American soldiers overrunning a Jap bivouac area became accustomed to picking up these socks and shaking out the souvenirs. However, on some occasions—instead of chop sticks, a Jap flag, and ten-yen notes—a sock would contain a U. S. hand grenade with the safety pin pulled.

RADIO DECEPTION

The fact that many Japanese can speak and understand English was emphasized in one instance during the fighting on Saipan. At one place on the island, the U. S. troops established an ammunition dump in a defilade where it could not be seen from the Japanese positions. Despite this, and despite the fact that the Japs had no air observation, the dump was shelled with regularity twice a day for 4 days. Eventually, a Jap soldier equipped with a radio was captured in the area, and this man admitted that he had been directing the artillery fire—in English. If at any time his fire direction had been picked up through American receivers, it apparently had not been suspected, because the orders were given in English instead of Japanese.



FRUIT-CAN BOOBY TRAP

U. S. troops working in captured Japanese ration dumps should beware of a clever Jap booby trap designed to catch hungry and unwary soldiers. Known as the "fruit-can booby trap", this device has been reported both from the Philippines and Burma.

This booby trap consists of an ordinary tin can filled with explosive and fitted with a pull-type fuze which protrudes from the sides of the can. The nature of the can is cleverly disguised with an exact counterfeⁱt of a U. S. canned fruit or canned jam label. These explosive-filled cans have been reported found in captured cases of bona-fide canned fruit—the pull fuze fixed to explode the charge when the cans were lifted from the cases. It is believed to be manufactured, and not a field expedient.

More booby traps of this, and other prefabricated types, may make their appearance as U. S. troops drive closer to Japan.



BURNING GRASS

An occasion when the Japanese in Burma turned burning grass into an offensive weapon has been reported recently. The incident occurred when the Japs, retreating from the northern combat area, used a gasoline-oil mixture to soak a grassy area, approximately 100 yards long, on the Jap-held side of a river. When Allied troops crossed the river and advanced into the grassy area, they were met with a hail of fire from tracer and incendiary ammunition. The oil-soaked grass was ignited, and some casualties occurred before the area could be cleared.

PREFABRICATED WOODEN MINE

Although Japanese improvised wooden box mines have been encountered on occasion in the Philippines, the capture of Iwo Jima has revealed the development of a factory-made wooden land mine manufactured to standard specifications by the Japs. Approximately 7 inches square and 5 inches deep, the mine is filled with $4\frac{1}{2}$ pounds of explosive encased in a rubber bag. This mine is fuzed with the combination pressure or trip-wire fuze used in the Model 3 pottery land mine¹. The threaded

¹ See Intelligence Bulletin. Vol. III, No. 4, p. 4.

rubber fuze seat is nailed to the underside of the wooden cover, and a hole is bored through the cover to permit the fuze to be inserted into the seat. The cover is fastened onto the wooden box by eight screws. The sides of the box are dovetailed, and are nailed together by six nails at each corner. The 37 nails and eight screws contained in the whole mine will probably permit detection by mine detectors. When prepared for shipment, ten mines are packaged in a wooden shipping case. The fuzes are packed separately.

JAP TENACITY

Japanese soldiers must be watched as carefully as a dangerous, hunted animal. This has been emphasized in an incident which occurred at Kohima, Assam:

After Allied troops had cleared the enemy from Kohima and had destroyed many bunker positions, three of our men, who were passing some of these wrecked positions, noticed a slight movement in one of them. When they paused to investigate, they saw the point of a bayonet protruding from the debris. Gradually the bayonet enlarged a hole, out of which came the head and shoulders of a Jap officer. The soldiers were confident of a good capture. But as the Jap came out of the bunker—where he must have been buried for several hours—he attempted to throw a grenade and was promptly blown to bits.

On another occasion, when Jap soldiers in a large, deep dugout refused to surrender, pole charges were used to collapse the dugout and bury its occupants. Two days later Allied soldiers opened this dugout to look for maps or other useful papers. They found the "bodies" of 12 officers and men. While these "bodies" were being removed, two of them came to life, and in spite of their weakness and exhaustion, these Japs also tried to throw grenades.



TANK AMBUSH IN BURMA

During the fighing in northern Burma, the Jap antitank gunners consistently used an unusual tank ambush. A very narrow fire lane was cut through the jungle, and at right angles to a road or trail. At the end of this lane—some 25 to 30 yards from the road—an antitank gun was emplaced behind a log revetment. As a tank approached along the road, the gun was not traversed, but fired point-blank as the tank crossed the lane of fire. A hit at this range usually disabled the tank, which had to be abandoned by the crew. Then, at night, the Japs would burn any such tanks left disabled on the road.

IMPROVISED INCENDIARY GRENADE

Improvised frangible incendiary grenades, made from materials easily obtained in the field, may figure prominently as a Japanese emergency weapon in the future, and variations may even be used by Japanese civilians in any last-ditch stand. Here is an example of such a grenade—one intended primarily for use against Allied armored vehicles and fortifications. The Japanese believe that this weapon is capable of such substantial results as setting tank engines and pillbox interiors on fire, and impeding their use.

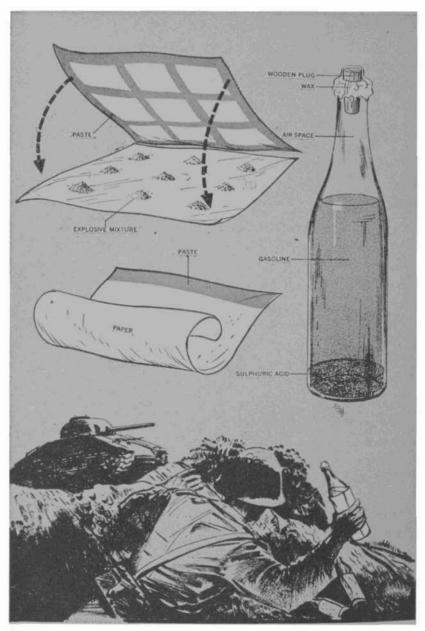
The grenade consists of inflammable paper and a bottle containing an inflammable substance. For several grenades, a single container bag is provided. If a typical Japanese cider bottle is used, the weight of the grenade is about 13/4 pounds.

A bottle is cleaned and completely dried. Fifty grams of sulphuric acid are put into the bottle, and then gasoline is poured in until the bottle is 80 percent full. Also, to extend the burning time, some waste oil or creosote may be added. After this, the bottle is plugged tight.

The Japanese are instructed to be particularly careful in filling the bottle, for if the sulphuric acid is poured into a bottle which still contains moisture, heat will be generated and damage may ensue. Furthermore, if the bottle is completely filled with gasoline, the vaporization pressure will cause the bottle to break.

For the plug the Japanese try to select a material that will not become permeated by the gasoline and sulphuric acid. When the grenades are not to be used for a long period, the Japanese may close the bottle by forcing a wooden plug into the mouth and then sealing it with wax or parafin.

The explosive agent is a sheet of paper, chemically treated, which is wrapped around the bottle before the grenade is thrown. In preparing this paper, the Japanese mix approximately equal amounts of potassium chlorate and charcoal powder—adding some sulphur and sugar, if possible. Small quantities of this mixture are placed on a sheet of paper, about 1 foot square, as shown in the drawing. Paste is spread on another sheet of paper in such a manner as not to come in contact with the mix-



Japanese soldiers may improvise frangible incendiary grenades from materials readily available in the field.

ture when the second sheet is laid over the first. Thus, when the two sheets are pressed together, the mixture is sealed into a number of small pockets. Paste is spread along one end of either of the sheets, and the sheets are rolled into a single cylinder and sealed. Each cylinder is made so that a bottle can be slipped into it without undue forcing. A "good fit" is the objective. The cylinders are stored in packages of 50.

Enemy soldiers are warned that in mixing the potassium chlorate, charcoal powder, and sugar, particular care must be taken to avoid injuries, since the procedure is comparable to that used in making black powder.

The principle of the ignition of the frangible incendiary grenade is the utilization of the propensity of potassium chlorate to explode when it is heated by an acid. The charcoal powder, sugar, and sulphur facilitate ignition.

The Japanese soldier is warned that unless he takes certain precautions, the frangible incendiary grenade may not ignite when he throws it. The primary cause of faulty ignition, Japanese instructions point out, is the failure of the sulphuric acid to come into contact with the chemical mixture sealed into the prepared wrapper. Therefore, the enemy soldier is told to make sure that the wrapper fits the bottle snugly enough to keep the two parts from separating in mid-air. The grenade is supposed to be thrown against a target at very short range so that the bottle will be shattered completely. The accompanying sketch shows how the Jap soldier grasps the grenade when he is ready to throw it.



A Post Mortem by a German Commander

A Panzer Grenadier regiment on the Italian Front launched an attack which proved a complete failure. Afterward, the regimental commander prepared a detailed analysis of the battle conduct of the units in his command, sparing no one in his criticism. Two factors are significant. The first is that the most elementary mistakes were made by company officers and noncoms, a reflection on the training and experience of those leaders. The second, and even more important, is that the commander acted vigorously to prevent a recurrence of the mistakes.

"The regiment was unable to gain any ground of importance," the commander pointed out. "We suffered severe and bloody casualties, and became so disorganized that about 12 hours were necessary for us to regroup. This might have enabled a more energetic opponent to break through and threaten [a key town] from the rear, if not actually to capture the town, and

bring about the annihilation of our regiment. Allied casualties were not heavy. It must be recognized that the enemy has retained his fighting spirit, and undoubtedly will continue his attempts to break through."

The commander then outlined what he considered the specific reasons for the failure of the attack.

Companies, he said, were not given enough time to fit themselves adequately into the tactical picture—"and, in fact, never did get into it."

Proper time schedules were not established, or, if they were, they were not adhered to.

Companies allowed themselves to become scattered as a result of Allied artillery fire. They were drawn off into a flanking sector, and then attacked where they had no business to be.

Scattered elements pushed ahead without bothering to maintain contact and communication with their unit commanders, or else they stayed where they were and attempted no further action, thus permitting themselves to become targets for artillery and heavy infantry weapons.

Company commanders failed to designate contact platoons—"if, in fact, they gave any orders at all," the regimental commander added. As a result, considerable sorting-out was necessary.

Light machine guns were not so sited as to enable the attack to follow through.

No Very lights were sent up. As a result, battalion commanders, artillery, and support units did not know the whereabouts of forward troops.

Company commanders failed to rally their assault squads after these had become disorganized; or, at any rate, the commanders did not muster the remaining elements for further attack, but wandered about without any apparent plan or objective.

Battalion commanders went forward in the proper way to try to remedy the confusion; however they left behind some of the most essential means by which their commands might have been carried out, and at the same time deprived their companies of radio sections and light machine guns. Battalion commanders neglected to order "Hang on—dig in—regroup, until fresh positions have been prepared." To a certain extent, the regimental commander commented, they were prevented from doing this by the breakdown of forward communications.

Battalion commanders changed their headquarters "far too soon, and far too often" with the result that subsequent action by the artillery and self-propelled weapons lacked order and coordination.

Officers commanding heavy companies were not at battalion headquarters to ensure coordination of fire at all times, and to take command in the absence of the battalion commander.

Insufficient use was made of the artillery. Forward observers were not forward at all, but were back at battalion headquarters. Also, individual forward observers had failed to exchange frequencies.

Executives either had been given no clues at all regarding their commanders' intentions, or were deprived of communication with the commanders, and could not report, take action, or even get into contact with companies.

Communication nets were poorly organized and generally inadequate.

Troops often ran straight into Allied fire without even trying to deliver fire from their own weapons.

Owing to the bad state of communications, the heavy weapons were unable either to concentrate their fire or to support individual forward thrusts.

Because of inadequate means of intercommunication, direct and indirect fire were in no way related to each other.

Companies which were echeloned to the rear came forward into the outpost lines much too soon, and without orders from the battalion commander. As a result, battalion commanders had nothing in hand and were obliged to commit their assault platoons prematurely, to achieve even the slightest gains.

Defense areas in front of the two objectives had not been decided upon beforehand in conference and made known to the gunners and supporting infantry, as a protection against counterattacks. When supporting fire was being given, these areas were not engaged at all.

One battalion reported over and over again that the second objective had been reached. These erroneous statements were based entirely on observation through binoculars, and not on actual reports from companies. As a matter of fact, the battalion in question had not yet firmly secured the first objective, but was merely scattered over that general area.

At no time was a report made when a prearranged report line had been reached or passed.

"Neither battalion executive nor company commanders, let alone platoon commanders or squad leaders, can read a map," the regimental commander stated flatly. "At best, only a rough or an incorrect check is made on the ground, but generally none at all. In this way, reporting, which in any case is poor enough, becomes damnably inaccurate."

Where there was no line communication, battalion and company commanders did not avail themselves of the lateral radio link, but instead, made inquiries first at higher headquarters. The regimental commander added, "Many an officer is without a clue as to the technical aids at his disposal, their capabilities, and their potentialities. This ignorance is detrimental to combat efficiency."

He concluded with regret that only in the most exceptional cases could his unit commanders be called genuine leaders, and

observed that, at best, they were to be found "stuck out in front," in dangerously exposed positions.

From this chronicle of mistakes the regimental commander drew the following lessons, and ordered that they be used as a guide in all subsequent actions.

"The shorter the time allowed for the preparation of an attack or other operation, and the weaker the forces at your disposal, the more painstaking the briefing must be, and the more carefully the preparatory orders must be given and executed.

"From the old main line of resistance, all commanders must acquaint themselves with the terrain over which they are to attack. At the same time, definite bearings must be taken for finding direction, and check points must be selected. Meticulous orientation must be carried out beforehand by each company commander. Should there not be time for this, exact points for direction finding and reference points should be worked out from the most up-to-date maps available.

"Routes to the objectives or report lines must be outlined by battalions, and must take into consideration the opposition that may be expected and the difficulties that are likely to be encountered in covering the ground. Regimental objectives and report lines should be disclosed only to battalions, and not to companies. Battalions should then judge from company reports when regimental objectives and report lines have been reached.

"Orders must make quite clear just what action, if any, is to be taken when (1) companies run into Allied defenses, (2) Allied fire is opened from the flank, (3) an Allied counterattack is mounted, (4) objectives are reached, (5) companies appear to be scattering, and (6) part of a company pushes too far or gets held up.

"For each expected phase of the battle, a fire concentration and coordination of heavy infantry weapons and artillery must be planned beforehand. "Weapons must be detailed to deal with hostile flanking fire—that is to say, the heavy machine guns of the rearmost company and some of the mortars or heavy mortars.

"In accordance with the anticipated extent of Allied resistance, a fire plan must be agreed upon, to assist the advance of companies and assault squads. In the event of the battle taking an unforeseen turn—such as the right platoon of the forward company advancing more rapidly than the left platoon—weapons (including heavy weapons) must be sufficiently ready and manageable so that they can switch their fire immediately.

"Contact companies and platoons must be detailed.

"Detailed orders will be given for companies to employ Very lights in case communications break down.

"It must be made known beforehand exactly where the heavy weapons company commander can be found, and only in exceptional circumstances will he *not* be at battalion headquarters."



Noting similarities between German patrol tactics described in a *Bulletin* article¹ and those observed by a troop in his outfit, Capt. Ted F. Douthitt, S-2 of the 104th Cavalry Reconnaissance Squadron (M), wrote the following account especially for our readers.

TACTICS OF A GERMAN PATROL

GENERAL SITUATION

"Captain Stouffer's Troop 'C' was employed on a line in contact with the enemy (see accompanying map). Platoons occupied outpost and dugout positions with mutual fire support, but extremely poor observation. (Hedgerows and orchards were profuse.) Communications depended strictly upon line-wire telephones, with radios in reserve for emergency use.

"The main obstacle was a canal ('No Man's Land'), 15 to 20 yards wide, which ran from northwest to southeast through the Troop's sector.

"Enemy 'feeler' patrols, consisting of from five to ten men, had been reconnoitering troop 'C's' area nightly for approximately 5 to 6 days after this unit had relieved the unit previously in the line.

"Up to the time of the special situation, enemy artillery and infantry activity had been considered normal for this particular sector."

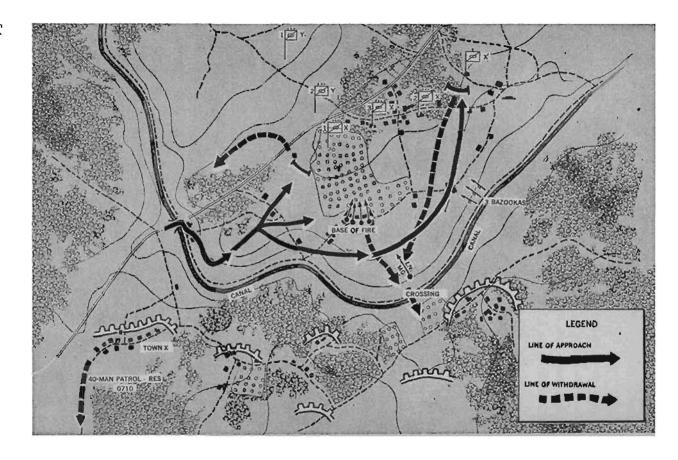
¹ "A Raid on A U. S. Outpost," *Intelligence Bulletin*, Vol. III, No. 6, pp. 37-39 (February, 1945).

SPECIAL SITUATION

"An enemy patrol, later determined to have consisted of approximately 50 to 60 men with a 40-man reserve, crossed the canal at the bridge sometime between 2158 and 2330. Continuous flares and lights were reported in Troop 'C's' area throughout the night. (It should be noted that enemy patrols use flashlights to draw fire, and thus disclose the location of dugouts and strongpoints.) Possible movement of 20-mm cannon was reported at 0201 and 0225 from the vicinity of the canal.

"Enemy action started about 0500 with diversionary shelling of the infantry on our left flank. At 0559 the enemy artillery shifted its fire into Captain Stouffer's area, and laid a heavy barrage for approximately 5 to 10 minutes. After the barrage lifted, the enemy patrol moved from its assembly point, and split into segments, as indicated on the accompanying map. Twenty to 25 men, equipped with automatic weapons and five light machine guns, established a base of fire. Twelve to 15 men, equipped with automatic weapons and a 20-mm cannon on a hand carriage mount, constituted the left flank patrol. (Later the 20-mm cannon was discovered to be a 20-mm Flak 38 converted to the ground mount.) Twelve to 15 men, with automatic weapons and bazookas, constituted the right flank patrol. Before these elements moved into their positions, they proved extremely proficient at disarming American booby traps, both the prefabricated and the improvised types.

"Upon moving into position, the enemy patrols opened smallarms and machine-gun fire on suspected dugout positions. When positive identification of one of our strongpoints had been established, they shifted to solid tracer fire from their automatic weapons. This tracer fire was targeted on our positions, and then was raised until the tracers were streaming into the sky, making a perfect X. Two or 3 minutes later, enemy artillery



would open up on the area where the tracers had crossed. When artillery had registered on one point, the patrols then selected another dugout or strongpoint, again selected targets by the use of tracers, and again adjusted for the enemy artillery on the south side of the canal.

"Another method of bringing fire upon our strongpoints was to have one man from the enemy patrol place flares, much like our railroad flares, on the spot where he wanted fire, and within a few minutes enemy artillery was registered on that spot.

"The patrol on the right flank was equipped with bazookas. It fired at our dugouts simultaneously with the enemy artillery, and then quickly moved into alternate positions to fire with the next salvo.

"During the action of designating targets with tracer fire, a machine gun, which had been left on the north side of the canal, provided liaison and adjustment for the right-flank and left-flank machine guns. If this machine gun picked out a target, it would fire solid tracer into the area and designate targets, or adjust for the machine guns of the enemy's right and left flank patrols.

"At 0615 our artillery opened fire on the enemy patrols, firing time bursts. This fire, together with that of the enemy artillery, caused the patrols to become disorganized and to retreat south of the canal. Our artillery swept the canal from left to right for 200 yards for possible crossing points.

"At 0710 and 0730, spasmodic fire from the enemy's automatic weapons covered his retreat across the canal. At 0710 a 40-man patrol was seen moving south from the town of X. It was assumed that this patrol was a reserve for the one which had infiltrated into Troop 'C's' area, and that if the previous patrol had been successful it would have moved across the canal

to consolidate its positions and gains. Our artillery opened fire on the fresh reserve patrol, and caused it to disperse. As the patrol crossed the canal under our artillery fire, the leader of the patrol fired a single red flare, and enemy artillery ceased firing."

CONCLUSION

"A resumé of the situation revealed that we had only one man wounded, with the others rather shaken up. At a final estimate it was found that the enemy artillery had dropped approximately 400 rounds into the sector, and that friendly artillery had fired over 300 rounds into the same area.

"The enemy patrols suffered two dead and from 10 to 15 wounded. That afternoon, we sent three special patrols down to the canal, to investigate the area for crossing points. These patrols found two white flags stuck into the ground; the enemy seemingly had used these flags as markers during the night, when they returned to the canal.

"Upon inspection of the bodies of the two dead Germans, it was found that their *Soldbuchs* were missing. Either these had been removed from the dead men's pockets by their comrades, or else it was a policy not to carry these paybooks while on patrol. No unit identifications were obtained.

"While German patrols pull every kind of crazy stunt to draw our fire, their night-patrol operations indicate careful planning, excellent cooperation, and precise execution.

Although this one U. S. Troop has experienced 765 rounds of artillery fire in 11 days, its personnel have sustained only four superficial wounds. (This artillery fire has included 10 to 20 rounds of 240-mm projectiles.) The unit's careful consideration of experiences related by others in the *Intelligence Bulletin* accounts for its success to date both in repelling raiding parties and in escaping serious casualties."



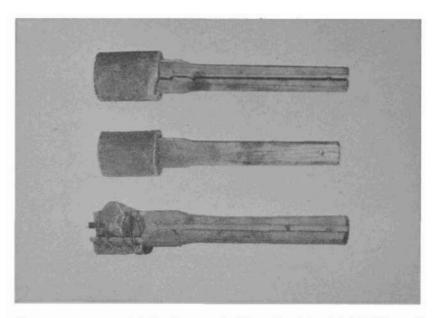
CONCRETE STICK HAND GRENADE

Large quantities of German concrete stick, or "potato masher", grenades have been recovered in various areas of the European Theater. Although it formerly had been supposed that such grenades were local improvisations, evidence now suggests that their design has been accorded official recognition. Two types have been found.

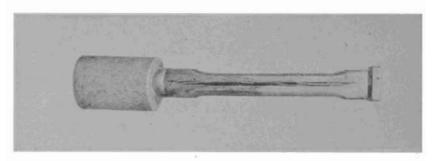
Type 1 consists of a wooden handle, rectangular in cross-section, with a \(^3/_8\)-inch-square groove running the length of the handle. A length of cord, attached to a pull fuze, operates through this groove. Often the other end of the cord is tied to a small piece of wood, which serves as a pull knob. This is wired to the end of the handle with soft, easily broken shear wire.

The forward end of the wooden handle is slotted to form two prongs similar to those of a tuning fork. Iron wire is wrapped around these prongs, partly to strengthen the concrete, but chiefly to secure the concrete head to the handle. The head has a hollow core to accommodate a standard stick TNT demolition charge, 1½ inches in diameter. Two metal inserts above the wooden prongs reinforce the cavity, and permit the insertion of the standard stick charge.

At the base of the concrete head is a small square of translucent waterproof paper over a cardboard square of equal size. There is a hole \(\frac{3}{4}\)-inch in diameter in the center of the cardboard, to admit the igniter to the bursting charge. This hole is aligned with the square groove in the handle.



German concrete stick hand grenade, Type 1, with stick TNT inserted in the cavity.



German concrete stick hand grenade, Type 2, with stick TNT embedded in the concrete.

Type 2 resembles Type 1, but is much simpler. Instead of a hollow in the head of the wooden handle to hold the stick charge, a semicircular cavity is milled into the wood, the explosive charge is placed in this cavity, and the whole assembly then is centered in the concrete mold. It will be noted that in the case

of Type 2 the charge is actually molded into the concrete, and projects about 3/8 inch on the end toward the handle.

In both types the explosive charge is the stick TNT demolition charge, Bohrpatrone 28, containing about $3\frac{1}{2}$ ounces of explosive and coated with waxed paper. The stick is 4 inches long, slightly more than an inch in diameter, and has a threaded aluminum insert cast into the explosive to accommodate standard German detonators. The usual detonator well is cast into the stick, and the cavity is sealed with a red sticker, which denotes the presence of TNT. The standard B.Z. 24 friction pull fuze, having a delay element of 4 to 5 seconds, is used.



IN BRIEF

RIEGELMINES UNDER CORDUROY ROADS

German use of Riegelmines under corduroy roads has been reported. An instance of this new minelaying method is illustrated in the accompanying sketch.

A corduroy road, laid and extensively used by the Germans, had been mined with Riegelmines staggered so as to cover the entire width of the road. Two of the mines were detonated by an Allied vehicle, and the road subsequently was swept with mine detectors. When the three remaining mines were located, it was found that they had been laid under removable sections of timber, which had been cut in a special manner, as the sketch on page 63 shows.

It was evident that these sections had been cut out when the road was being laid, in preparation for minelaying later on. Since the road had become covered with mud, as a result of continual usage, the Germans no doubt found it a very easy matter to lay the mines, replace the sections of timber, and smear mud



German method of laying Riegelmines under a corduroy road.

for camouflage. The entire operation had been performed so efficiently that at first it was thought that whole lengths of timber had been removed to permit the minelaying.

No antilifting devices had been fitted. Under the circumstances this was rather surprising, inasmuch as the Germans could easily have inserted a pull fuze in each wire, and connected it to a removable section of timber by means of wire or cord. In the future, certainly, Allied troops who use corduroy roads in hostile areas should be on the lookout for this type of booby-trapping.

ADD BOOBY TRAPS

A U. S. platoon leader reports an unusual booby trap that the Germans had rigged in a building that the lieutenant's division subsequently used as a command post. The building was a wooden structure, with a tin roof. When rain began to fall, it was noticed that there was a small hole in the roof, which permitted the rain to leak into the building. A soldier was directed to go up on the roof and mend the leak. He found that a sheet of the tin roofing apparently had slipped out of place. When he drew the sheet back into place, he caused a pull-type booby trap to detonate, and suffered serious injury.

"TO SEE OURSELVES--"

Experienced German soldiers, recently taken prisoner in Italy, have criticized Allied soldiers for their habit of exposing themselves carelessly.

One group of Germans said that, when they surrendered, they still had pistols in their holsters and were carrying a loaded machine pistol. Two Allied sentries sprang out of the bushes, their weapons at their hips, and took the Germans prisoner. This was foolhardy behavior, commented the Germans, who pointed out that they themselves might have been part of a prearranged trap. "The sentries should have remained under cover, and ordered us to advance without our weapons," the Germans said. "The sentries should not have exposed themselves until the last minute. Even then, only one of them should have stepped forward, while the other kept us covered."

Prisoners criticize Allied soldiers in general on the score of being too carefree in the line. They accuse us of playing at soldiering. We seem to be incapable of realizing how deadly serious a game it is, they say, and add that they suppose this is why we still have not learned how to make proper use of cover and concealment.

Here are four pertinent comments from British company officers who have discovered the importance of remedying such negligence in their own units:

"Twenty-four hours after a battalion of the X Infantry Regiment had been relieved and brought back into reserve, a patrol approached a unit on the left flank of the relieving battalion. When challenged, the patrol leader called out that he was a major in the X Infantry, returning with a patrol. The party was wearing battle dress, and the sentry let them pass through. It was, of course, a Boche patrol."

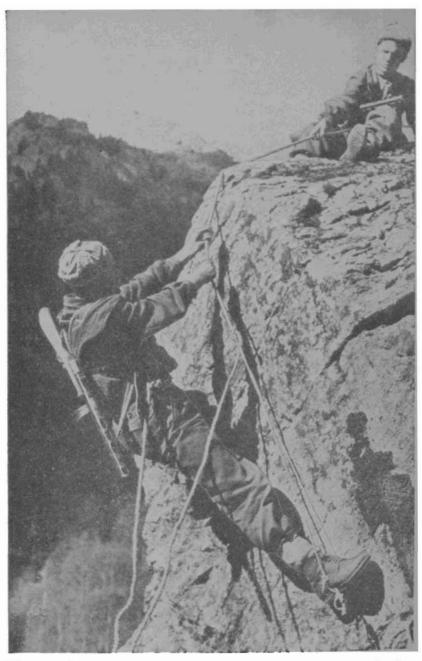
"Men are likely to become astonishingly careless during lulls in operations. They use obvious roads and paths, even though these are within the enemy's view; they move in the open on the sunny side of a valley, even when the other side affords good shadow cover; and they rise up after napping in trenches, and stretch their arms."

"About 2 weeks ago I lost a darned good sergeant, and only because on that occasion he had neglected to darken his chevrons—that is, to scrub off the whitening. Officers and noncoms can't make themselves conspicuous in the front line, and expect to get away with it. They won't."

"More than once I saw our troops give themselves away by moving around in their positions."

SNIPER SCORE

A German sniper working for a 7-day furlough, the reward for ten successful shots, accounted for five Americans before he was captured. Four of the five were shot from the same position, and all in one day. In each instance, the victim had carelessly left cover and stood still in the open. And in two cases the sniper had three bunched-up men from whom to choose his target.



No type of terrain is considered an obstacle, and full advantage is taken of routes over cliffs and other terrain features normally impassable.



SOVIET INFILTRATION UNITS IN MOUNTAIN WARFARE

For Soviet troops engaged in combat in mountainous and forested areas, the Red Army advocates the use of small units to infiltrate through mountain defenses and harass an enemy's lines of communication. Although this tactic is not new—the Japanese have used it extensively in jungle fighting—the Russians, unlike the Japs, employ infiltration units as carefully coordinated parts of a general offensive operation designed to encircle and destroy mountain strongpoints and their defending troops.

These infiltration units may vary in size, a typical unit being composed of an infantry section or an infantry platoon. Such a unit is heavily armed with submachine guns or automatic rifles, a mortar, and possibly a machine gun or more. It is not unusual for engineers to be attached to a unit, their function being the reduction of obstacles which might impede the advance of the unit.

The Red Army conception of mountain warfare envisages the employment of large masses of troops, despite terrain. An enemy line of mountain strongpoints is softened by powerful artillery and air bombardment. Then, under cover of its own mortars and direct fire weapons, an infantry assault is launched



A typical infiltration unit is heavily armed with submachine guns or automatic rifles, a mortar, and possibly a machine gun or more.

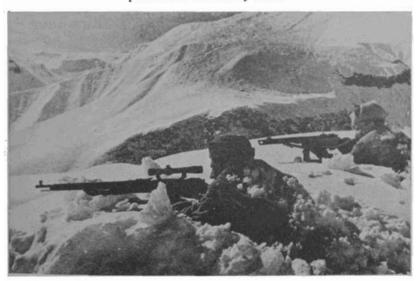
in an endeavor to pin down the enemy defenses and perhaps secure a breakthrough.

It is during this assault, when the enemy troops are fully occupied defending their positions, that the infiltration units take advantage of unguarded terrain, or move through the breakthrough to establish themselves deep in the enemy rear area. No type of terrain is considered an obstacle, and full advantage is taken of routes over cliffs and other terrain features normally considered by the enemy to be impassable. Several infiltration units may move independently through the same general area.

The mission of these small groups is to emerge eventually in a predesignated sector on the main supply and evacuation route in the enemy rear area. Here they occupy dominating terrain and endeavor to block all movement of supply and evacuation to and from the enemy mountain strongpoints. Small patrols



Small patrols roam over a wide area, harassing indiscriminate targets in an effort to create the impression that a much larger force has penetrated the enemy rear.



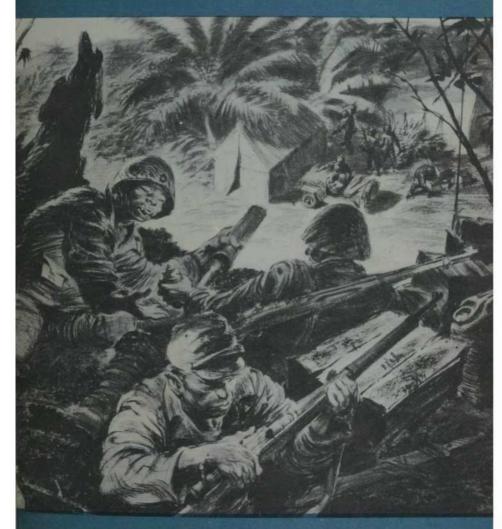
Infiltration units occupy dominating terrain, and main roads are interdicted with small-arms fire until the enemy is forced to use secondary roads or to cease all movement temporarily.

roam over a wide area harassing indiscriminate targets in an effort to create the impression that a much larger force had penetrated to the enemy rear. Vehicles are wrecked and used as road blocks, and main roads are interdicted with small-arms fire until the enemy is forced to use secondary roads for communication, or to cease temporarily all movement to and from his front.

However, the Red Army realizes that small units cannot count on remaining unmolested once their harassing tactics become a serious threat. Consequently every effort is made to reinforce the groups with the continual infiltration of other such units until the strength of the Soviet troops behind the enemy lines grows progressively to a company, then a battalion, and finally a regiment.

The Red Army has discovered that by the time the infiltration has reached this stage, enemy supply operations have been seriously hindered, and resistance to assault upon his strong-points has declined. It is then that an all-out Soviet assault must be launched, not only from the front and flanks of the positions, but from the rear by the now greatly reinforced infiltrated troops. Often, in such a situation, the enemy abandons his positions under the threat of encirclement. In such a case it is the mission of the infiltrated Soviet troops to attack and destroy retreating enemy groups. If the enemy stays to be encircled, the strongpoints are bypassed by the main strength of the assault, and are left to be liquidated by the encircling troops.

Intelligence Bulletin Syoliii - NO 11 JULY 1945



MILITARY INTELLIGENCE DIVISION . WAR DEPARTMENT . WASHINGTON D. C.

Have You Learned A Lesson About The Enemy?

The Intelligence Bulletin is anxious to obtain contributions from units and individuals, especially intelligence agencies, for publication. Articles that present lessons about enemy tactics, techniques, and matériel are particularly desired, and when it is consistent with security, credit will be given to the contributing agency or unit. Contributions may be sent directly to the Supervisor of Reports, Military Intelligence Service, War Department, Washington 25, D. C.

Readers are urged to comment on the use they are making of this publication and to forward suggestions for future issues. Reproduction of material published herein is encouraged, provided that (1) the source is stated, (2) the classification is not lowered, and (3) one copy of the publication in which the material is reproduced is forwarded to the Military Intelligence Service.

Requests for additional copies of the *Intelligence Bulletin* should be made through channels.

Notice

All material in Volumes I and II and Numbers 1, 2, 3 and 4 of Volume III of the *Intelligence Bulletin* (September 1942 through December 1944) has been reclassified by authority of the A. C. of S., G-2, War Department, and is now unrestricted.

VOL. III NO. 11

JULY 1945

INTELLIGENCE BULLETIN



MILITARY INTELLIGENCE DIVISION WAR DEPARTMENT • WASHINGTON, D. C.

NOTICE

The MID monthly publication Tactical and Technical Trends has been merged with the Intelligence Bulletin. Beginning with this issue, the Intelligence Bulletin will include material of the type which formerly appeared in Tactical and Technical Trends.

DISTRIBUTION:

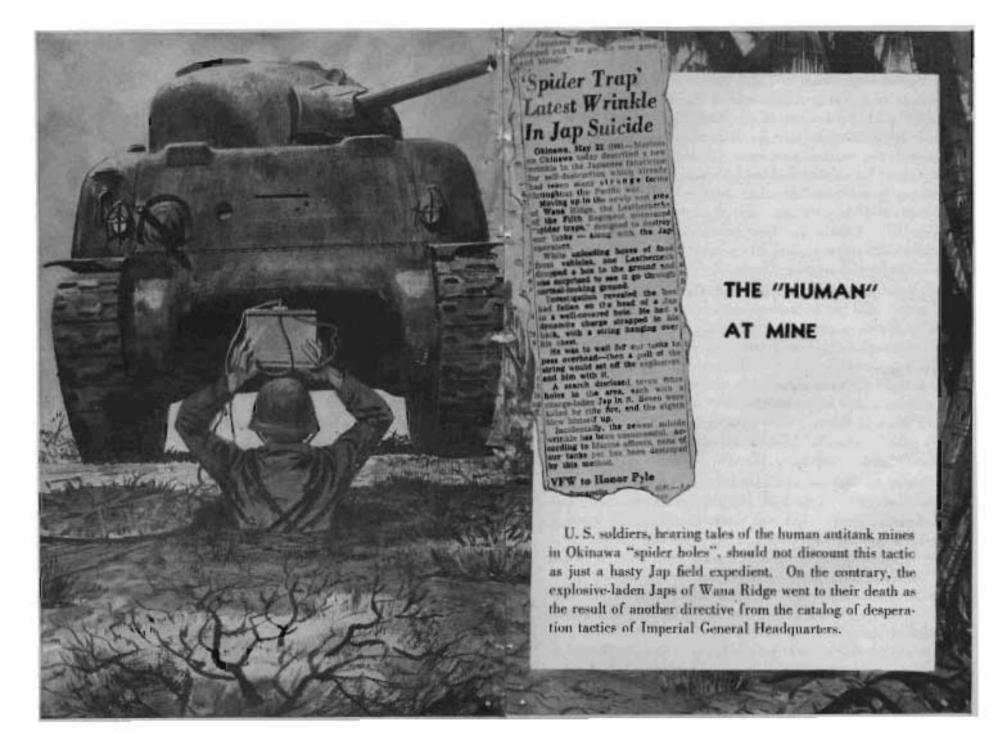
AAF (30); AGF (35); ASF (2); T of Opns (200) except IB (1000); Island Cmds (10); Base Cmds (10); Depts (10); Arm & Sv Bd (10); Def Cmd (10); Tech Sv (10) except QMG (65); SvC (10); HD (10); PC&S (ZI) (5), (OS); (2); SEPE (200); HRPE (6); Gen & Sp Sch (100); Repl Depots (65); USMA (100); ROTC (3); UTC (100); RTC (150); except RTC's—7 (500); Ord Dist (10); A (10); CHQ (10); B (2); D (2); R (2); Bn (2); C (2).

VOL III · NO 11 JULY 1945

TABLE OF CONTENTS

	Page
THE "HUMAN" AT MINE	1
COMBAT METHODS OF SMALL RAIDING PARTIES	6
COMBAT LESSONS FROM OKINAWA	15
TOMBSTONE HILL	18-19
THE MOST EFFECTIVE JAP TANK	20
HOW TO FIGHT AMERICANS—A Jap Commander's Pep Talk	28
JAP WEATHER	33
JAPS' BOOBY-TRAP AMMUNITION DUMPS	39
IWO JIMA WAS READY—Japanese Plans for Defense	43
LOST IN THE BURMA JUNGLE	48
A JAP PLATOON RAID ON A BATTERY POSITION	54
SMOKE IN THE ATTACK	58
JAPANESE COUNTERLANDINGS	62
NEW NATES ON O MM SUBMAQUINE AUNS	60

Cover Illustration: A Japanese raiding party, having knocked out an outpost, prepares to open fire on a U.S. command post.



Last summer, apparently alarmed by the effectiveness of U. S. tanks in support of American infantrymen, a committee of high-ranking officers in Tokyo met to devise more effective methods of stopping Allied armor. Field experiments, conducted under the direction of Assistant Chief of Staff, General Ushiroku, resulted in what has become known to some U. S. troops as the shoulder-pack mine. These experiments likewise formulated the tactical doctrine by which Jap soldiers in camouflaged spider holes "must face death willingly" in organized attempts to destroy the tank support of American infantry attacks. This doctrine has been standardized by the Imperial General Headquarters, and disseminated throughout the Japanese Army.

Reports from the Philippines and other parts of the Pacific have indicated an increasing use of improvised box mines. Although used in many ways by the Japs, these boxed explosives are recommended by the Imperial General Staff as the principal weapon of Jap suicide soldiers whose mission is to attack U. S. tanks in close combat. As a carrying convenience, larger box charges may be equipped with shoulder straps. Shoulderpack mines of this type were recovered on Leyte, along with a Jap prisoner who explained his mission to be that of a suicide antitank soldier.

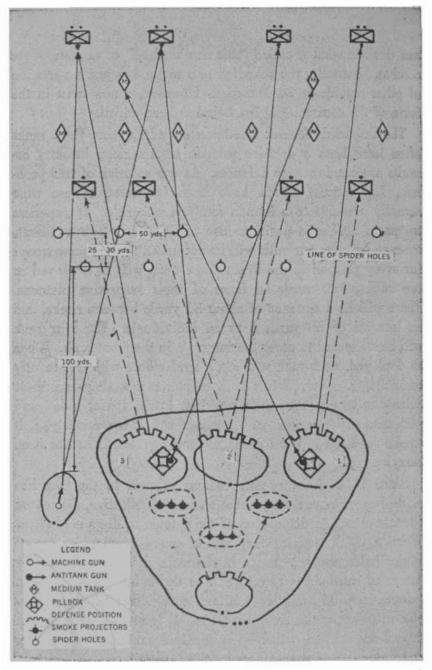
Box mines were recommended for two reasons: They can be improvised easily in the field, and they can be constructed with an explosive charge larger than that contained in many standard Japanese antitank mines. Although it is possible that box mines may be found in varying sizes, charges of from 10 to 20 pounds of explosive have been recommended for use against U. S. armor. These improvised box mines will be fitted with an ordinary pull-type friction fuze of 1-second delay, and with a short length of pull-cord.

It was for this weapon that the Imperial General Headquar-

ters devised what it called "this new method" of antitank close combat. Actually, the so-called new method is just a variation of other suicide antitank tactics. However, a new twist in the form of the camouflaged fox hole has been added.

The Imperial General Headquarters admits that U.S. tanks often have been a decisive weapon in American infantry assaults against Japanese defenses. As one solution of this problem, Jap combat troops have been instructed to use what actually amounts to a human antitank minefield. If Japanese troops in defensive positions use this tactic as Tokyo directs, ten-man tank-assault units will be organized from reserve troops for every platoon in the line. These units will be deployed in two ranks, 100 yards in front of their respective platoons. There will be a distance of about 30 yards between ranks, and an interval of 50 yards between individuals. The rear rank will be staggered to cover the intervals in the front rank. When so deployed, each man will dig a spider hole with a carefully camouflaged cover. When a U.S. attack is anticipated, these suicide units will take their positions in the spider holes, and each man will be armed with a shoulder-pack box mine, a small smoke candle, two hand grenades, and a pistol, if he has been carrying one.

Since U. S. infantry-tank mutual support in the past has made Jap antitank close combat virtually ineffective, the reason for this elaborate disposition of the suicide soldiers is obvious. When a U. S. tank-infantry attack enters the double line of spider holes, the Jap troops in the main defenses will try, by means of small-arms fire, to halt or throw back the American infantrymen. If available, antitank guns within the Jap perimeter will engage the rearmost tanks. It is at this moment that the suicide soldiers will leap suddenly from their spider holes and throw their box mines under the nearest tanks. Since these Japs are instructed to tie the fuze pull-cord around their wrist,



Plan of a Jap platoon defense sector behind a double line of antitank suicide soldiers in camouflaged spider holes. The platoon can give fire support to the tank fighters during their close-combat assault on the attacking tanks.

the mine detonates 1 second after it is thrown. If necessary, smoke squads in the perimeter will launch smoke projectiles into the area to give further cover to the suicide assault.

Fantastic though it may seem to U. S. troops, these tactics have been recommended in all seriousness by the highest Japanese military authority. Like much Japanese tactical doctrine, the spider-hole antitank defense will work only under the ideal conditions outlined here. Much depends upon coordination between the suicide soldiers and the defending Jap infantry—and upon the assumption that U. S. infantrymen will cease to support their tanks at the critical moment. However, it is entirely likely that, as on Okinawa, variations of this tactic will be encountered in future operations when American tanks and infantry move out to crush a Japanese strongpoint.

The Booby Trench

The "booby trench" is a Jap innovation on Okinawa. Advancing U. S. troops are often tempted to take cover in apparently little-used shallow trenches they find dug by the Japanese. But these trenches have been dug in areas which have been previously ranged in, and when U. S. troops drop into them, they are brought under direct mortar fire.



The Japs regard raiding parties as small investments that must pay big dividends. In each case the maximum damage that a handful of troops can inflict is the goal.

COMBAT METHODS OF SMALL RAIDING PARTIES

Increasing activity in the form of small Japanese raiding parties, which infiltrate through Allied lines in an effort to launch surprise attacks against matériel and key personnel, has become a decided trend in the last few months of fighting in the Pacific.



Clearly intended as a compensation for the lack of artillery and air superiority in battle areas, these attacks may vary from concerted raids by trained units to small suicide assaults executed by ordinary Jap service or combat foot soldiers.

PELELIU

Prior to the operations on Morotai and Peleliu, the Japanese have reported, raids and surprise attacks by small groups had been carried out sporadically, for the most part, and without proper coordination. Moreover, the effectiveness of these raids had been momentary. Methods now are becoming more systematic and uniform, the enemy states. "The Peleliu garrison knew that death awaited it," Imperial Army Headquarters goes on to say. "Each line officer, of course, and each technical, finance, and medical officer, as well-everyone worthy of the name of officer—took his place at the head of a small band of subordinates, and carried out training and other preparations, determined to create death-defying fighting units." Although this statement is extravagant, as are the claims of success made for these raiding parties by the enemy, it is true that training of small infiltration and close-combat teams was undertaken by the Peleliu garrison, and that a number of raids were attempted.

The Japanese especially recommend the use of a flexible unit of small, coordinated teams, of a type employed on Peleliu. "Although procedures must vary, depending on the target, Allied dispositions, terrain, time, and changes in battle conditions, it generally is best to entrust an infiltration raiding attack to a small number of men operating under cover of darkness. This is especially true when each team is composed of only two or three men, who try to infiltrate Allied positions without being detected by searchlights and other warning equipment."

On Peleliu it was considered that the most promising targets were Allied tanks (whether on the move or organized into a

strongpoint within a bridgehead), fire points surrounded by simple obstacles (including land mines), signal liaison centers, warning and searchlight installations, Allied commanders, and bunched-up troops.

"In counterattacks executed under intense bombing and artillery fire," the Japanese said, after Peleliu, "the recommended strategy is to send a large number of infiltration and close-combat teams to probe into the enemy lines from many directions and along a wide front. Within the enemy lines four waves of these teams will attack at night according to a 'saturation plan.' It is particularly important that the enemy's tanks and artillery, the backbone of his combat power, be destroyed. In advancing for this purpose, personnel must take all possible advantage of the terrain—small caves, folds in the land, shell craters, and thickets. After infiltrating, the teams should keep themselves concealed within the enemy's lines for one or two nights, so that the enemy can be caught off his guard by means of surprise attacks on a subsequent night."

The Peleliu operations led the Japanese to recommend the use of small amphibious commando teams equipped with small boats (collapsible and other improvised boats, small rafts, and at times even small landing barges), gasoline in drums, incendiary equipment, mines, depth charges, and small arms. These teams attempt to harass Allied landing craft under cover of darkness, while the raiding parties are launching surprise attacks in beachhead sectors. Also, amphibious commando teams may be supplemented by "suicide swimmers".

MOROTAL

During the past winter it was discovered on Morotai that certain "fundamental instructions" had been given to Japanese soldiers who had been selected, or who had volunteered, to lead small raiding parties in commando operations.

Leaders were to select men who were "daring, quick, healthy, and conscientious" or were to use experienced men. Uniforms—and presumably equipment, too—were to be as light as possible. The danger of leaving footprints was stressed, and the use of rubber-soled canvas tabi was recommended.

Flanks were to be kept moving, and precautions taken not to invite air bombardment. Raiding parties were not to linger in any one place. Everyone was to be camouflaged. During the approach, parties were to take advantage of heavy rainstorms and cold weather.

Raiding parties were advised to take cover immediately upon discovering an Allied force and to make sure of their aim at close range. Allied patrols and guards were to be engaged by surprise attacks.



"During the approach, raiding parties were to take advantage of heavy rainstorms and cold weather."

The party leader was to instruct his guards to use hand grenades against Allied gasoline and ammunition dumps. Also, hand grenades were to be tossed into Allied officers' quarters.

The principle of making every round count was emphasized. When firing upon an Allied patrol, the first Allied soldier in line was to be killed, and the remainder in succession. [However, an *Intelligence Bulletin* reader on Luzon notes that, in his unit's experience, the Japanese seldom fired upon the scouts, but waited for the third or fourth man in the hope that he would prove to be the patrol leader. In all battle areas, the Japanese continue to regard small-unit leaders as primary targets.]

It was pointed out that a raiding party might attack to advantage during an air raid.

If attacked, in turn, members of a raiding party were to observe the strength, armament, and equipment of the Allied force—presumably so that all this subsequently could be reported by survivors. Japanese troops were urged not to be afraid of the concentrated mortar fire which could be expected to follow their use of rifles and grenades.

Japanese wounded either were to be hidden, or put to death. It was stressed that they must not fall into Allied hands. This led to mention of the necessity of capturing Allied soldiers for interrogation purposes.

When surrounded by an Allied force, Japanese soldiers either were to break through the encirclement or commit suicide. Nevertheless, provision was made for conduct in case of capture by Allied troops. In particular, the Japanese were warned not to divulge unit code names or the strength of units. It may be noted, incidentally, that the Japanese rarely furnish their troops with such "instructions in case of capture", lest the death-in-battle-or-suicide tradition be weakened.

BURMA

In Burma, the Japanese are making extensive use of so-called "matériel raiding parties", as well as combat and reconnaissance patrols. Parties are not sent out haphazardly, with general instructions to destroy any matériel. Most active during periods of Japanese attacks, the raiders try to destroy selected equipment that may have an important bearing on the course of the battle. Motor transport bringing forward Allied supplies, as well as artillery pieces engaged in harassing Japanese attacks, constitute typical targets. It should be noted, too, that the Japanese avoid the willful destruction of any Allied equipment that they believe they may be able to capture later on and put to their own use.

Such raiding parties have not hesitated to launch aggressive surprise attacks against Allied personnel operating, or bivouacked, in the vicinity of equipment that the Japs have selected for destruction. On one occasion, for example, a raiding party attacked a vehicle park, drove the defending troops into the surrounding hills, and then destroyed the vehicles by the simple expedient of bayoneting the gasoline tanks and igniting the escaping gasoline. On another occasion, a raiding party succeeded in working its way among some British artillery gun crews while they were firing at night. The Japs destroyed some of the equipment by means of magnetic antitank mines, and killed some of the crews before they could comprehend exactly what was happening. But the surviving gunners—by rallying, killing most of the raiding party, and driving off the remainder—prevented the Japs from achieving large-scale damage.

The Japanese also have been known to try to slip through the perimeter defenses of airstrips, in the hope that they could place bombs—either of the magnetic type or equipped with short delay fuzes—in front of aircraft radiators, in air scoops, in the baggage compartments of aircraft, and so on. Raiding parties



"A raiding party attacked a vehicle park, drove the defending troops into the surrounding hills, and then destroyed the vehicles by the simple expedient of bayoneting the gasoline tanks and igniting the escaping gasoline.

attempting missions of this type are likely to carry bangalore torpedoes, for use against wire defenses.

Matériel raiding parties in Burma appear to consist primarily of infantry and such other troops (generally engineers) as may be dictated by the nature of the respective missions.

LUZON

Information regarding the theory of small Japanese suicide assault units, and the use of Formosans by such groups, was obtained on Luzon.

The enemy envisaged the destruction of U. S. guns, tanks, headquarters buildings, and other installations as the primary missions of these raiding parties. The composition and size of a unit depended upon the nature of its mission, but a three- to five-man group, under a competent noncom, leading private, or first-class private, was considered desirable under average cir-

cumstances. The Japanese felt that a number of such groups (five three-man groups or three five-man groups, for example) under a suitable officer or noncom should be used to attempt raids deep into hostile territory, utilizing gaps in hostile dispositions, and to launch simultaneous attacks against several such objectives as airfields, tank assembly points, and so on.

The idea of using Formosans as the "feelers" for a raiding party during concealed movement was looked upon favorably by the Japanese. The principle behind this was that the Formosans' acuteness of vision and hearing, as well as their physical ability to cope with rugged terrain, made them especially suited for night reconnaissance. Leaders of raiding parties were ordered to maintain the relationship of master and servant between themselves and the Formosans.

In most instances a three-man group was considered sufficient for an attack on a headquarters, a signal station, an assembly point, or a fuel or ammunition dump. Only explosives which could be carried easily were to be used, and a large quantity of incendiaries was recommended for the attacks on the dumps.

LEYTE

During the fighting on Leyte U. S. troops in some areas had to deal frequently with raiding parties bent upon attacking and destroying heavy artillery weapons, tanks, and bridges.

An average raiding patrol of this type consisted of approximately 20 men under the leadership of a Jap officer. Each man was armed with a rifle with only ten rounds of ammunition, and each carried a magnetic armor-piercing mine. Apparently, these raiding parties carried very little food with them, and depended for rations upon what they could forage. Because their mission was to attach their magnetic mines to vehicles and guns, these raiding troops would not engage U. S. troops in combat except in self-defense, or to further their mission.

A distinction must be made, of course, between suicide assault units and small raiding parties that are expected to return, if possible, to a parent unit.

It is well worth noting that the Japanese in the Philippines have found suicide attacks by small raiding parties unusually costly in the loss of key personnel. Recognizing that such a trend is likely to affect the subsequent conduct of battle adversely, at least one Japanese army has directed that privates, rather than officers or noncoms, be assigned to lead suicide assault patrols consisting of two or three men.

Dirty Work on Iwo

During the night, Jap soldiers would booby-trap Marine dead with pressure-release charges.

Snipers wearing Marine uniforms were reported again by front-line troops, and enemy snipers taken prisoner disclosed that they hid under our dead during daylight hours, and came out at night to fire.



COMBAT LESSONS FROM

OKINAWA

Although the Japanese troops on Okinawa have had their hands full defending that strategic island, they nevertheless have found time to observe and analyze the combat technique of the U. S. troops. Their observations have been passed on from one Jap outfit to another. But American soldiers also may pick up some useful information from this Jap's-eye view of U. S. tactics in the Ryukyus.

TANK-INFANTRY TACTICS

As of last April, at least one Japanese unit had formed very definite opinions regarding U. S. use of tanks and infantry. These Japs believed that the best way to fight U. S. tanks was to let them approach within short range of antitank guns, and then to engage the armor with surprise fire. If antitank guns were not available, defensive efforts were to be concentrated on the supporting American infantry. Jap soldiers were taught that seven or eight infantrymen would follow in support of each tank, but that if one American was shot, the others would either halt immediately or withdraw.

The first wave of U. S. armor, the Japs observed, either bypassed or drove swiftly through villages, but succeeding waves of tanks would enter each village and destroy it with gunfire and flame throwers. As a result, the Japs decided that a net of antitank close-combat positions (see the story on "spider hole" tactics, on page 1) should be prepared in the fields in front of the villages.

It was the belief of this Jap outfit that U. S. troops used smoke shells to designate Japanese positions, and then laid concentrated fire on those targets, to cover the advance of the tanks and infantry. Under such conditions, the Japs said they found it best to use the cover provided by the smoke to close in and attack the tanks. They also found it necessary to establish a tank observation post, because the U. S. tanks were quieter than Japanese armor. The identity of tanks, they found, could be determined at approximately 1,000 yards when the tanks were moving on a road, whereas they could not be identified properly when moving cross-country until they were within about 80 yards of the observation post.

American tank troops, they claimed, provided plenty of opportunities for close-combat attacks, because, even though a leading tank was fired upon, succeeding tanks would follow the same route. Also, tanks sometimes would open their hatches to pass ammunition to the supporting infantry.

It is the opinion of some Japanese that U. S. infantry is "decidedly poor" in deploying, rushing, crawling, and firing. Whenever Americans encounter resistance, the Japs said, they do not select the proper targets. Instead, they "fire wildly". The Japs added that U. S. tanks are guided by the supporting infantry, and that every effort consequently must be made to "annihilate" the infantry. They claim that only half of our infantrymen are armed with rifles, that the other half are kept fully occupied carrying ammunition, radios, and litters.

PROCEDURE AT NIGHT

These enemy soldiers observed that the U. S. troops who had opposed them broke off the action at dusk and retired to dig into a perimeter defense for the night. Dusk, the Japs said, is a better time than night for infiltration attacks. However, they noted that there were U. S. guards at 10-yard intervals around the perimeter, and that an all-around defense in depth with automatic weapons was a U. S. procedure. Similarly, tanks at night formed a perimeter with other vehicles.

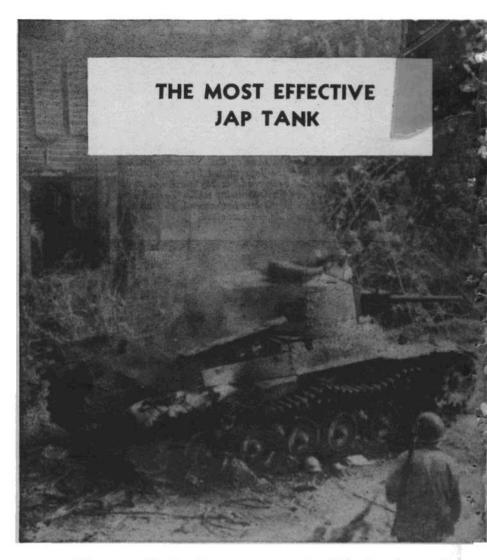
It was pointed out that U. S. troops fire during the night, but seldom make an offensive move in the dark. The Japs have observed that three or four men work together in building a position for the night, and that a Japanese night attack brings flares followed by mortar fire from the American perimeter. On the principle that the interval between a flare and a mortar barrage generally is very short, the Japs advise their comrades to hit the ground fast.

JAP DEFENSE NOTE

For their own defense, the Japanese advocate what they call the "bottle-shaped" fox hole, completely camouflaged. They recommend preparing numerous bottle-shaped fox holes around the cave-type dug-outs, so that defending troops can fire and change position frequently. Great emphasis is placed upon moving out of a position as soon as it has been discovered. Positions should be changed, the Japs say, "whenever a lull or calmness occurs", as a heavy artillery barrage is sure to follow.

The Japs making the report did not speak very highly of the local civilians who had been conscripted for combat with their organization. Instead of holding a formation, the Japs complained, these conscripts would scatter in all directions whenever they encountered small-arms or artillery fire.





The most effective Japanese armored vehicle thus far met by U. S. forces is the Type 97 (1937) medium tank (improved), a 15-ton tank mounting a high-velocity 47-mm gun as its chief armament. This vehicle, which first appeared in the Philippines in 1942, has since been encountered in Burma and the Pacific

theaters. A number of Type 97 mediums (improved) constituted a sizable part of the Japanese armored division which operated on Luzon in January and February 1945.

Although this tank is considered a superior fighting vehicle, Japanese armor on Luzon never mounted an attack with more than 16 tanks at any one time, and never employed the principle of mass. Instead of making use of the mobility of its tanks, the Japanese division chose, instead, to fight from fixed defenses and emplacements and to make piecemeal counterattacks. As a result, the Japanese armored effort resulted in little more than delay.

USED IN DEFENSIVE ROLE

The general design of the Type 97 medium (improved) is satisfactory, but engagements with U. S. tanks have shown that its present maximum armor thickness (1 inch to possibly as much as 1.29 inches) will not withstand high-velocity projectiles. Perhaps for this reason, Jap medium tanks on Luzon—the first formidable armored force to oppose the U. S. advance toward Tokyo—were employed chiefly to stiffen village defensive positions. The tanks—well dug-in under thick, concealing foliage and with adobe revetments—were used as a nucleus around which all other defenses were built. Alternate positions were prepared so that the enemy armor could be shifted around the perimeter as the situation dictated. The number of tanks of all types employed in defense of individual villages varied from nine to 52.

Armored counterattacks were employed only as a last resort, when it appeared inevitable that local defenses would collapse. These limited attacks were launched under cover of darkness in support of infantry banzai charges. The enemy tank crews invariably became confused and were easy prey for U. S. antitank weapons.

The enemy on Luzon only once employed armor in daylight to support an infantry counterattack. The three tanks and two self-propelled 150-mm howitzers committed in this attack were destroyed, and three other tanks then withdrew without entering the fire fight.

In many instances, tanks were observed moving in convoy with general-purpose vehicles; however, it was not definitely determined whether this was done to give protection to the column or as a matter of convenience.

HIGH-VELOCITY GUN

The Type 97 medium tank (improved) is a modification of a 15-ton tank first produced in 1937. The Japanese class both as mediums although they fight at about the same weight as the U. S. light tank M5A1. As far as can be determined, the hulls of the original and improved versions of the Type 97 medium are identical, and both are powered by a V-12 cylinder, aircooled Diesel engine with overhead valves. The chief modifications introduced in the improved version of the Type 97 medium are changes in the turret and the substitution of a high-velocity 47-mm gun in place of the original version's low-velocity 57-mm gun, a weapon unsuited for tank-versus-tank fighting. Although the substitution of this weapon necessitated redesigning the turret, the armor thickness (maximum of 1 inch to possibly 1.29 inches) was not increased, nor was any other major improvement effected.

The Type 97 medium (improved) is readily recognized by its elongated turret, slightly offset to the right. The generally circular turret of the original version has been changed to a rectangular, over-hanging type, long and low in appearance. The turret is 76 inches long and 56 inches wide at its widest point. There is no provision for a hand ring, like the one provided on the original Type 97 medium tank.



Jupanese Type 97 (1937) medium tank (improved).

ARMAMENT

The Type 97 medium tank (improved) mounts a Type 1 (1941) 47-mm tank gun and two Type 97 (1937) 7.7-mm tank machine guns. One machine gun is mounted in a ball mount forward in the hull, and the other in the rear of the turret.

The 47-mm tank gun is a high-velocity semiautomatic gun, equipped with a hydrospring recoil mechanism; since the gun is mounted at the point of balance, no equilabrators are used. The gun has a muzzle velocity of 2,700 feet per second; an elevation of -15° to 20°; and a free traverse of 10° right and left, and a mechanical traverse of 360°. The gun is equipped with an excellent 4 x 14° panoramic telescopic sight, resembling the U. S. M6 sight used on the U. S. 37-mm antitank gun M3.

Recent combat reports indicate that the quality of the 47-mm armor-piercing, high-explosive projectile has been improved. Moreover, tests show that the 47-mm tank gun will penetrate the U. S. M4A3 at 500 yards or more. In combat, one U. S. M4A3 medium tank was hit six times with armor-piercing, high-explosive rounds from this gun, at an angle of impact of approximately 30 degrees. Five complete penetrations and one partial penetration resulted. The range, according to members of the U. S. tank crew, was approximately 150 to 200 yards.

SPECIFICATIONS

Additional specifications, based on preliminary reports and subject to correction, for the Type 97 (1937) medium tank (improved) are as follows:

Weight (approx.)	
Length	
Width	
	7 ft. 9 in.
Ground clearance	13½ in.
Armor thickness (may vary 5 to	10 mm, and may be increased):

	Millimeters	Angle to vertical
Turret front	33	•
Turret sides and rear	26	11°
Hull front	. 25	11°
Hull glacis	. 16	82°
Hull upper nose	16	60°
Hull lower nose	20	30°
Hull side	. 26	25°
Hull lower side	9	0°
Hull rear	. 20	\mathbf{curved}
Hull top	. 13	90 °
Hull floor	. 8	90°
Transmission:		
Typesliding g	ear, with his	gh-low transfer case
Speeds		
Width of tracks		
Performance		
Obstacles		
Trench		8 ft. 3 in.
Ford		3 ft. 3 in.
Gradient		
Speed		

PENETRATION TEST

A field test has been conducted by a U. S. antitank company to determine the penetration capabilities of U. S. infantry antitank weapons attacking the Type 97 medium tank (improved). U. S. weapons used in the test were the caliber .50 machine gun, the rifle grenade, the 2.36-inch rocket, and the 37-mm antitank gun.

The caliber .50 machine gun fired on the Japanese tank at three different ranges—35 yards, 50 yards, and 100 yards. In firing on the front of the tank at a range of 35 yards, penetrations were registered on the ball-mounted machine gun only; no penetrations were made on the vision aperture, turret, or



Type 97 (1937) medium tank (improved)—front view.



Rear view of Type 97 (1937) medium tank (improved).

curved or sloping surfaces. At 50 yards, 35 percent penetrations were made in the plate behind the suspension system (on the side of the tank), the ball mount of the rear machine gun, and the under surface of the rear of the tank. At 100 yards. no penetrations were made on any part of the tank.

The rifle grenade was fired at a range of approximately 50 vards. When the grenade was fired at a normal angle to 45 degrees from normal, penetration was made on all parts of the tank, with the exception of the gun shield. The diameter of the penetrations was approximately ½ inch.

The 2.36-inch rocket was fired against the tank at a range of approximately 50 yards. Penetrations were made in all parts of the tank when the rocket struck at angles from normal to 45 degrees from normal. The diameter of the penetrations was approximately 3/4 inch.

The 37-mm antitank gun was fired at ranges of 100 and 350 yards. Only armor-piercing shells were used. At 100 yards, the 37-mm registered penetrations on all parts of the tank when fired at angles from normal to 45 degrees from normal. At 350 yards, penetration of the tank armor could be made only when the antitank gun was fired at normal angle. The diameter of penetration was approximately 1½ inches.

As a result of this test, the ranges listed below were recommended as the most favorable for employment against this tank:

27

HOW TO FIGHT AMERICANS





Jap officers, who have learned to respect American fire power, are continually seeking a means whereby their troops may survive the effect of bombardment and yet remain an efficient fighting force.

Late in January of this year, a Japanese battalion commander in the Clark Field area was faced with imminent attack by troops of the U. S. Sixth Army driving down the central plain of Luzon. Realizing that it was impossible for his small force to counter the American advance, he withdrew his troops to the hills. There the Japanese major gave to his troops a series of instructions in which he astutely estimated the general trend of U. S. tactics and the best means of conducting a defense against them.

ESTIMATE OF U. S. TACTICS

Placing special emphasis upon the U. S. superiority of fire power, the Jap major told his men that the American attack would come in three phases: fire preparation, advance and encirclement, and the final assault.

"U. S. troops," he said, "will first attempt the complete destruction of the Japanese forces by artillery and air bombardment—even if it requires the constant expenditure of thousands of bombs and shells over a period of 3 days just to neutralize a hill position 300 yards in frontage and depth.

"Then, after this fire preparation, the American tanks and infantry will advance under cover of artillery and air support

until they are within 40 to 50 yards of their objective," he said. "Here they will dig in, and thrust forward gradually until our position is surrounded. Tanks will be used as pillboxes, and, having encircled us, the Americans will close in until we are completely annihilated.

"However," he continued, "if, during their advance, they discover that our troops still occupy their objective, the Americans will revert to the first phase of the attack and resume the air and artillery bombardment. But when the Americans actually reach their assault positions, they will launch attacks against the objective, using flame throwers, hand grenades, and grenade dischargers. During the Leyte operations there were also instances of hand-to-hand fighting.

"American tanks, assisted by superior air and artillery power, will stay outside the effective range of our antitank guns, and will deliver sudden and unexpected neutralization fire. Then, when our antitank guns have been destroyed, these tanks will penetrate our forward positions to prevent us from undertaking hand-to-hand combat.

"Generally, the Americans do not use a large force in carrying out night attacks, and at present it seems as though they are not attacking at night. Instead, they employ every possible means—such as army dogs and listening devices—to prevent our men from infiltrating into their positions. Therefore, it is up to us to devise a method of penetrating American defensive perimeters."

JAP COUNTER TACTICS

Having forewarned his men as to the general pattern of the forthcoming battle, the battalion commander outlined the manner in which the attack would be met. "In opposing such enemy tactics," he said, "it is imperative that you take refuge in caves during the air and artillery bombardments, to prevent the loss

of even a single man. At intervals between bombardments, observers will provide security against the unanticipated approach of hostile infantry. When the enemy infantry comes within our effective range, combat troops will man their weapons."

"In such an event," he continued, "emphasis will be placed principally on sniping both with rifles and heavier weapons. Markers will be placed 50 yards in front of the final protective line, so that when the enemy approaches the marker, fire can be directed against him. Random firing is prohibited, as is all night firing. Each unit commander will instruct his men to make the present supply of ammunition last for over a year of fighting.

"I am establishing ranges at which the various weapons may open fire," the Major said. "The following will be adhered to



Rifles, grenade dischargers, and light machine guns may open fire at 200 yards or less.

closely. Rifles, grenade dischargers, and light machine guns may open fire at 200 yards or less. Other machine guns may fire at 300 yards or less. Machine cannon and antitank guns may open fire at any target under 500 yards range.

"When the enemy has advanced to within 50 yards of our positions, you will either destroy the Americans with grenades, or charge boldly and destroy them by means of the close-combat tactics peculiar to the Japanese Army. It is also imperative that we consider the vast effectiveness of primitive and crafty tactics, such as dropping boulders from cliffs and using straw dummies to divert enemy fire.

"At night," he continued, "we must find the position in which the Americans have halted their attack. Patrols will reconnoiter such positions in an attempt to infiltrate and attack such objectives as heavy guns, tanks, American officers, supply dumps, and so forth. Such infiltrating units will fight at close quarters, but before launching an assault, hand grenades and other explosives will be thrown forward to stun, wound, or kill the enemy.

"In short," the major concluded, "by reinforcing our caves, we must try to reduce damage to ourselves during air and artillery bombardment. But if we neglect the tactics of encirclement and close-quarter fighting, there is very little chance of our defeating the U. S. forces, who depend upon material superiority. In these battle instructions, I am speaking only of the distinctive characteristics of the tactics to be employed against the Americans. As for other matters, it is advisable that you study the appropriate Army manuals. Remember—they are the fruits of bloodshed."

The soldiers of the Japanese battalion, having received their commanding officer's instructions, retired to their cave positions. They were defeated. But the battle was one of the roughest fights in the U. S. liberation of Luzon.

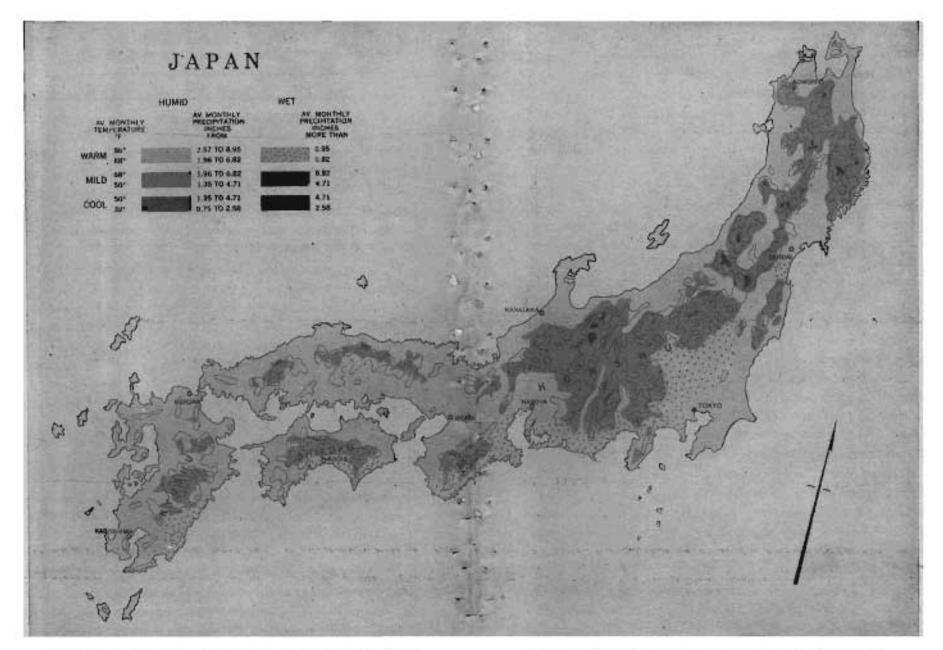
JAP WEATHER

The old gag "It isn't the heat, it's the humidity" must be altered to "It's the heat and the humidity" to describe the climate of Japan during August. In this month the relative humidity throughout the islands is above 80 percent. Moreover, just to make things tougher, August is the warmest month of the year in the Japanese area.

This is reported by the Climatology and Environmental Protection Section, Office of the Quartermaster General, which has prepared the accompanying climatic zone maps of Formosa and Japan (minus Hokkaido and the Kurile Islands) for the month of August. First of a series of monthly weather maps of Japan, these charts are designed to give the American soldier a general idea of what to expect in the way of weather around Japan.

In August the average temperature differences throughout most of the Japanese islands are slight, varying from 81° F. in Formosa and Kyushu to 73° F. in northern Honshu. Only in northern and eastern Hokkaido, in the Kuriles, and in the mountainous regions is the climate considerably cooler; the August temperature in the extreme eastern part of Hokkaido averages 62° F., and at Syana, in the Kuriles, it drops to 60° F. Mountain temperatures, which decrease about 3° F. per 1,000 feet, go below 50° F. at about 9,000 feet in central Japan in the Japanese Alps and at about 5,000 feet in central Hokkaido.

The maximum rainfall is approximately 7 inches when the temperature is 68° F., and decreases with corresponding drops in temperature. In general, the wet area is limited to the mountains in Japan, but it reaches the coast along eastern Kyushu,



Climatic zone map of the main Jupanese home islands for August.

August is Japan's hottest month, with a high relative humidity.

southern Shikoku, and the mountainous coast of southern Honshu east of Shikoku.

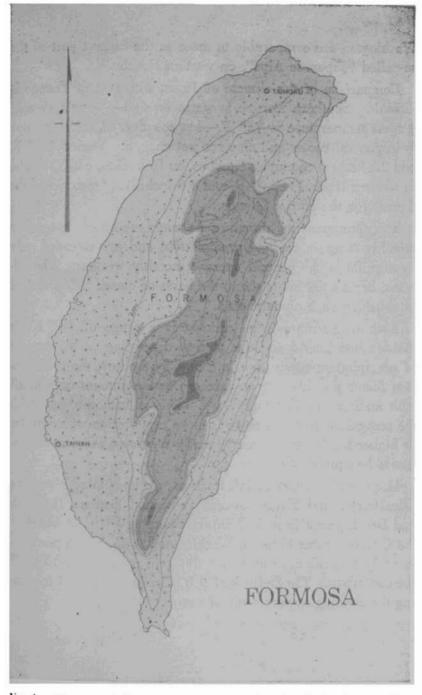
At certain places—Ome, Koti, and Siomisaki—the precipitation may be above 10 inches, and it is above 5 inches practically everywhere on the islands of Honshu, Shikoku, and Kyushu. Average rainfall is 5.88 inches at 60° F., the lowest average August temperature being at about sea level in the Kuriles.

In comparing the climates of Japan and the United States during August, the nearest approach to the lowland climate of Formosa, Shikoku, and Kyushu is found in our southeastern states. Miami, with a temperature of 82° F. and 6.3 inches of rainfall, is somewhat comparable to Naha on Okinawa and Taihoku on Formosa (both 82° F.). However, the rainfall is heavier in both the latter places—10 inches at Naha and 12 inches at Taihoku.

New Orleans (82° F. and 5.8 inches) and Charleston, S. C. (81° F. and 6.5 inches) are similar in climate to southern Kyushu. Central Japan has more rainfall in August than corresponding areas with the same temperatures in the eastern United States. Tokyo (77° F.) and Washington (75° F.) have almost the same average temperatures, but Tokyo has 7 inches of rain as compared to Washington's 4.2 inches.

A better comparison is possible for the island of Hokkaido, where Sapporo (69° F. and 3.6 inches) has practically the same climate as Portland, Me. (66° F. and 3.1 inches). The climate of the Kuriles is similar to that of Newfoundland—Syana (60.5° F. and 3.9 inches) compares favorably with St. Johns (60° F. and 3.5 inches).

For the Japanese mountains the best comparison is with conditions on Mount Mitchell, N. C., which is 6,711 feet high (58° F. and 7.7 inches) and Mount Washington, N. H., which is 6,262 feet high (48° F. and 6.1 inches). Conditions on Mount



Nearly all areas of Formosa can expect a lot of rain in August. For key to the map, see the map of Japan on pages 34 and 35.

Washington are comparable to those in the highest part of the so-called "Japanese Alps", on western Honshu.

Comparison of the climate of Japan with that of Europe is difficult. Southern Europe is warm enough—Rome's average August temperature is 75° F.—but too dry. Central Europe is in general cooler and also not wet enough. Vienna (66° F. and 2.8 inches) resembles Sapporo, on Hokkaido, and Valencia, in western Ireland (58.9° F. and 4.8 inches), approximates the figures for the Kurile Islands.

The accompanying climatic zone maps are based on average monthly temperature and precipitation and are intended only as a guide to the general average monthly weather. The climatic key on the maps shows the basis of classification and of establishing each climatic zone.

Each temperature zone, which has a range of 18° F., is divided into humid and wet phases, depending on the amount of precipitation received. As shown by the key, the precipitation factor provides for an increase in the amount of rainfall with an increase in temperature. This is in accordance with the recognized fact that there is more evaporation with warmer or higher temperatures, consequently requiring more precipitation to be equally effective.

More detailed weather information may be obtained from the Climatology and Environmental Protection Section, Research and Development Branch, Military Planning Division, Office of the Quartermaster General, Washington, D. C., which prepares monthly climatic zone maps for different countries and for all the continents. The findings of this office are used in determining the clothing requirements of troops.

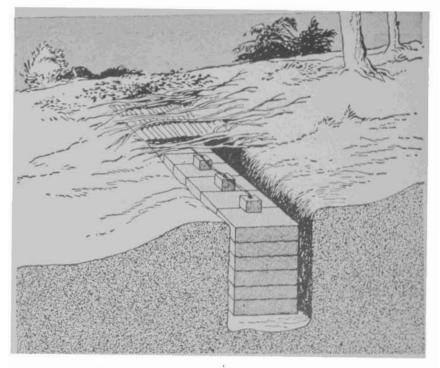


JAPANESE BOOBY-TRAP AMMUNITION DUMPS

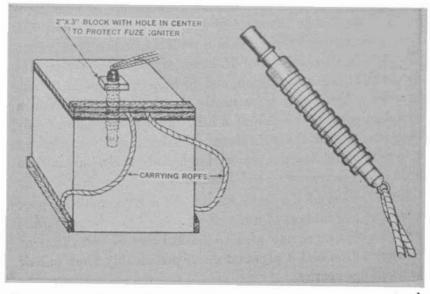
Retiring Japanese troops on the Batangas Peninsula, Luzon, ingeniously booby-trapped three sizable ammunition dumps in the vicinity of Imoc Hill. The existence of probable hidden demolitions in this area was revealed by the shattered bodies of two civilians and a dog, who had paid the price of inquisitiveness. Ammunition dumps at Gapan also had been booby-trapped, and one of these, too, had been detonated by the unwary.

An investigation of the remaining munitions in both areas revealed that other dumps had been cleverly booby-trapped. The munitions booby-trapped in a typical instance (see accompanying sketch) consisted of 75 boxes of Type 99, 7.7-mm rifle and machine-gun ammunition, and 15 boxes of Type 89, 50-mm grenades. The boxes were neatly stacked six high within a revetment cut into the side of a hill. This revetment was only large enough for the munitions. Entrance and encirclement were not possible on the ground level, and inspection could be made only from one end and from above.

From the top of the embankment, the site resembled a poor attempt at concealment of a trench. Loose dirt, twigs, and grass had been thrown on top of a roof consisting of two sheets of corrugated iron and a plywood door, presumably from one of the dwellings nearby.

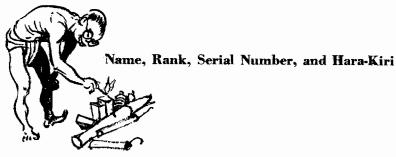


Booby-trapped ammunition dump cutaway.



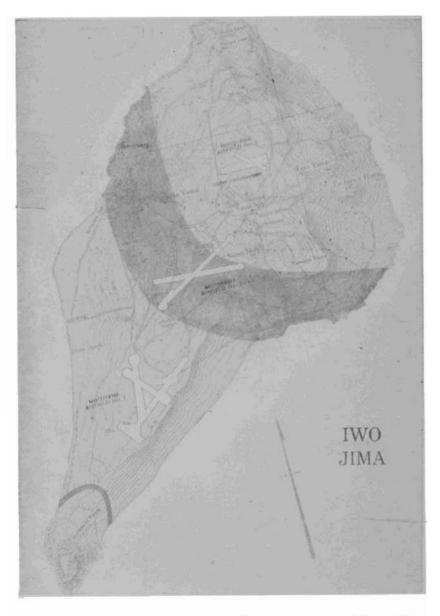
Twenty-pound box mine containing picric acid block and painted black. Size: 8½ in. by 8½ in. by 8½ in.

Fastened beneath the main components of the roof to long branches were the strings of six pull-type friction igniters fixed in box-type mines. These mines were placed directly on top of the stacks of munitions and carried the entire weight of the roof. Therefore, any attempt to move any portion of the covering materials would be likely to pull at least one of the igniters, detonate the picric acid contents of a box mine, and cause the explosion of the ammunition.



Some Jap officers have begun to acknowledge the fact that other Japs sometimes become prisoners of war. They have instructed their men:

"It is desired that the following instruction be carried out if a soldier becomes a prisoner of war. If a soldier unluckily falls into enemy hands, he must not give out any military information. Furthermore, he must use every means to seek out enemy military information and endeavor to escape and return to his unit. If the above-mentioned instructions cannot be carried out, commit suicide."



Map of Iwo Jima—The dark areas indicate the strongest defense zones, according to the Japanese plan.



IWO JIMA WAS READY

JAPANESE PLANS FOR DEFENSE

Several months before the U. S. invasion of Iwo Jima, the Japanese were ready with a plan for each phase of a proposed defense. Applying many of the lessons they had learned on Saipan, Tinian, and Guam, the Japanese deviated from their former basic principle of small-island defense: "Annihilate the invaders on the beaches." Instead, the doctrine laid down for Iwo Jima—and apparently observed in most respects—included protection against preliminary bombardment, establishment of defensive positions in depth, coordination of the fire power of all units, and detailed antitank preparations.

ORGANIZATION OF THE TERRAIN

Organization of the island's defenses posed an immediate problem. The Japanese attempted to solve it by dividing their defensive set-up into three categories—main defenses, beach positions, and inner lines of defenses.

The strongest positions on the island were to be constructed in a zone about 1,100 yards in depth, curving across the center of the island. The front edge of the zone would touch Motoyama Airfield No. 2. Other fortifications were to be built in the Mt. Suribachi sector, at the southern end of the island. The strongest positions in this sector were to be within a line 770 to

880 yards from the foot of the mountain, and strongpoints connected with the beach positions were to be prepared in the forward areas.

In an attempt to defeat the invaders on the beaches, strong key positions were to be organized on the beaches, on both sides of Motoyama Airfield No. 1, and elsewhere. However, the perimeter defense, which had proved unsuccessful in previous island campaigns, was abandoned in favor of reliance on withering artillery fire. Major U. S. landings were anticipated on the southwestern and southeastern coasts. (Actually, they were made on the southeastern side of the island.)

Since American landings also might be made in strength in the northern or eastern sectors, the enemy ordered the forces holding these sectors to be on the alert and to overwhelm any landing attacks. If necessary, reserve units in these sectors were to be committed to exploit the difficult terrain and halt U. S. advances by strong and determined counterattacks.

At possible landing places in the eastern and northern sectors, independent positions in depth were planned, running from a line near the water's edge back to the cliff area. In the interior, several positions which could interdict the main road network leading into the interior were to be established.

The Japs were determined to have strong key positions at all strategic places on the island, if time permitted. They proposed to turn Iwo Jima into a virtual fortress by the gradual reinforcement and connection of these points.

DETAILED BATTLE PLAN

Thinking in terms of what conceivably might happen, the Japs planned the successive phases of their battle strategy as follows:

To avoid excessive losses during preliminary bombing and bombardment: The defense commanders ordered their forces

to resort to dispersal, concealment, camouflage, and maximum utilization of defense works.

To defeat U. S. landing attempts: Maximum artillery fire coordinated with that of coastal-defense guns, as well as stubborn resistance for the beach positions, was ordered. U. S. tanks were to be destroyed by close-quarter attacks.

To prevent U. S. expansion of a beachhead, if the landings succeeded: Artillery and infantry fire, raiding attacks, and other countermeasures were to prevent any expansion or consolidation of the beachhead and were to reduce U. S. battle strength. Primary targets would be command posts, artillery positions, and tank concentrations.

To prevent penetration of the main defenses, if U. S. forces succeeded in expanding their beachhead: The attacks would be met with concentrated fire power, close-quarter attacks, and vigorous local counterattacks.

To prevent capture of the main defenses, if U. S. forces succeeded in penetrating them: Counterattacks supported by fire power were to be launched.

To defend the inner line of positions, if U. S. forces succeeded in capturing the main defenses: The Japanese commanders advised their troops to hold out as long as possible by carrying on stubborn resistance from a line of secondary defensive positions.

If U. S. forces should succeed in capturing the inner line of positions: The Jap commanders admitted that at this point it would be difficult to continue organized resistance. They nevertheless urged all men to fight tenaciously and inflict heavy casualties on U. S. forces before succumbing.

ANTITANK TACTICS

U. S. forces would find it difficult to maneuver tanks on the sandy beaches, the Jap commanders decided. They believed

that for this reason it would be most feasible to destroy the invading tanks by means of land mines, shelling, and close-quarter attacks. If U. S. beachheads were established, Jap raiding parties were to exploit the confusion resulting from artillery fire and darkness.

If the battle drew close to the main positions, where the terrain and artificial obstacles might restrict the movement of U. S. tanks, it was the Jap intention to destroy the encroaching armor by means of antitank guns, a few Japanese tanks, and assaults by close-combat teams.

The personnel of the close-combat teams were to be chosen expressly for this work. The construction of many antitank ditches and other tank obstacles, both outside and inside the positions, was recommended as the best means of reducing the mobility of U. S. tanks and facilitating close-quarter attacks.

ARTILLERY DEFENSES

In setting up their artillery defenses, the Japanese ordered that all artillery units be coordinated, and that fire concentrations be planned not only for the beaches, but for the areas in front of, and within, the main positions. Close cooperation between infantry and tanks also was ordered.

Artillery fire was to begin when small U. S. craft reached the beaches. Targets in the water were to be fired on only by specifically designated forces.

For surprise effect, the Japs ordered the use of "special-type weapons" (presumably their rockets and spigot mortars). Preparations were to be made against surprise night attacks and landings, as well as against airborne raiding units.

USE OF TANKS

To conserve their armor, the enemy commanders ordered that the tank forces be withheld during the opening phases of the battle. Japanese tanks were principally to be used in conjunction with the fighting around the main positions; however, elements were to support counterattacks in the eastern and northern sectors, should fronts develop in those areas.

COUNTERATTACKS

The Japanese commanders again broke away from the methods employed on other islands when they considered the execution of counterattacks. Because large-scale counterattacks not only had failed to accomplish the desired results in the past, but also had dangerously weakened the defending forces, the commanders ordered that all counterattacks be conducted by small forces only.

Maximum fire power and thorough preparation were to be emphasized in planning counterattacks, which were to be carried out systematically. However, surprise attacks were not to be shelved; the enemy urged that these be used when troops could take advantage of darkness, terrain, or weather conditions, or when a local situation offered favorable opportunities.

DEFENSE AGAINST PARATROOPS

That the Japs feared paratroop landings on Iwo was also indicated in the plan, which included procedures for combating such attacks. Emphasizing the necessity for strict antiaircraft security measures, the Japanese ordered that the planes be fired on before the paratroopers jumped, and also directed that certain elements fire on these men as they descended.

Stressing the point that the airborne troops should be wiped out before they had an opportunity to consolidate, the commanders not only arranged for artillery to deliver neutralization fire on the fields, but assigned forces to attack and destroy any U. S. troops who might reach the ground.





LOST IN THE BURMA JUNGLE

Shot down over the Burma jungle, this RAF warrant officer used common sense and followed a predetermined plan that got him back to his own troops in 7 days. How he did it is unspectacular, but useful to know.¹

¹ Adapted from "Aim", the Army illustrated magazine of the British Middle East Command.

FIRST DAY

I knew my position, and knew from the briefing where our troops were, so I decided to make for them. I took out my ½-inch maps, and immediately made for cover in the thick elephant grass. I could see no one about, but heard machinegun fire to the south. When I reached cover, I decided to stay there for a bit: so I took stock of my kit and tested my revolver. I kept my helmet; I went through my maps and made quite sure of my position and the best way of reaching our troops. I knew the country very well from the air.

At about 1300 hours I decided to move off to the north, and reached a nearby trail, on which there were some derelict motor vehicles. I went on further, and reached a river. But when I saw a man lying beside the trail, on the outskirts of a village, I decided to go back and hide in one of the lorries to wait to see what he would do. On my way back I met two natives, who proved unfriendly. We had a row, and, since the native I had seen first must have heard what was going on, I dived into the thicket on the north side of the trail. During this encounter the



pockets containing my emergency rations were torn away, and their contents lost.

Moving about 200 yards into the jungle, I rested for a time and stayed alert, as I expected a search. However, I felt sure that I had not left many tracks. I set off again at 1500 hours, and did not worry too much about the loss of my rations as I was confident of being able to reach our troops within a reasonable time. Reaching the river again, I bathed my head and filled my canteen. I sterilized the water.



I tried fishing with grubs, but had no luck. I scraped some leaves together and made myself as comfortable as possible, but I only dozed. The mosquitoes were very bad, and my kit did not include the headgear with mosquito net when it was issued. I wore my

silk flying gloves, but they left part of my wrists unprotected. I wore my helmet, and covered my face and neck with a hand-kerchief and leaves. Occasionally I heard animals coming down to the river.

SECOND DAY

At about 0600 hours I started off to the southeast, to reach a river that I wanted to cross; it was about 20 yards wide and I swam it without difficulty. The jungle to the north was too thick, so I made for the hills to the northeast.

I continued along a ridge and eventually reached the top of a hill, from which I checked my position. I climbed another hill, reaching the top at about 1800 hours, and decided to spend the night there. But it started to rain, and continued all night, so I was most uncomfortable and could not sleep. I still did not feel hungry.

THIRD DAY

I set off at the same time as before-0600 hours-and again made for the river. An elephant heard me on my way down, but I hid behind a boulder and it rushed past me. I moved along what I took to be an elephant



trail. There were one of two footprints, and the grass on either side had been pushed outwards. I heard and saw an occasional elephant, but had no trouble.2

At about 1800 hours I decided to bed down for the night. Since the rain had continued throughout the day, I still was most uncomfortable. I saw blood on my stockings, and found four or five leeches, which I removed with a leech stick.3 I covered my face and hands as before. Throughout the journey I made a practice of starting out at about 0600 hours, resting at midday, and getting ready for the night at about 1800 hours.4

FOURTH DAY



I set off for the river again and reached it at 1200 hours. I could not cross it, and got lost in the swamps alongside it. Leeches were bad during the day. I removed 17 from my right leg and 11 from the left. The next morning I found nine more. My legs and

ankles were the only parts affected.

² British Army comment: "It is comparatively rare for wanderers in the jungle to have trouble from animals. This pilot was right to hide behind a boulder, as elephants are shortsighted. One should at all events keep still."

² British Army comment: "Other ways of removing leeches are:—(a) the juice of a lime (if it is available); (b) salt; (c) strong solution of potassium permanganate; (d) tobacco juice; (e) a lighted signature of the potassium permanganate; (d) remove its laws in the wound.

[&]quot;available); (b) salt; (c) strong solution of potassium permanganate; (d) tobacco junce; (e) a lighted eigarette end, applied discreetly so that the leech will not leave its jaws in the wound. Carbolic soap, and probably yellow soap, smeared on the stockings, will keep leeches off," 'British Army comment: "Among the most important lessons is the extreme desirability of keeping as far as possible—as this pilot did—to regular hours, resting in the middle of the day, and preparing for the night well before dark."

FIFTH DAY

I retraced my steps up the hill, and at about midday found myself on top of a ridge, from which I saw two hills I could identify. I checked them carefully with my maps and compass, and decided to make for one of them. I reached it in the evening. At two or three points, I was careful to check the markings on the map with my position on the ground. I was feeling quite fit, but somewhat tired. I still did not feel hungry, although I had had no food at all. There was plenty of water, which I always sterilized. I took salt tablets the first day, after sweating very badly, but did not take them afterwards. I took Mepacrine (atabrine) every night.

SIXTH DAY

I went down the hill towards the river, reaching it at midday, when I rested for an hour. I knew my position accurately, and knew that there was every chance of our forward troops being close at hand. I fired my revolver three times in quick succession, but without result. I went to sleep in the sun—the first real sleep I had had.

I awoke at 1700 hours and decided to get into the bushes and stay there throughout the night. However, while I was preparing for the night, I noticed five water buffaloes watching me from the river. Then something attracted their attention upstream. I looked, and eventually detected three horses with riders and three men on foot, on the opposite bank. I was certain they were British troops, so I shouted and made my way towards them.

They proved to be a patrol out to find me. They made many attempts to reach me, first with a horse and then with ropes—they failed to find a boat—but their efforts throughout that night were unsuccessful.

SEVENTH DAY

In the morning they got some bully beef across to me, and advised me to eat very little. For the first time, I felt hungry. They also managed to get a rope of three strands of electric cable across the river, and a medical officer came across, hand over hand. They eventually got me across by the same means, after great difficulty. I was taken on a stretcher to a field ambulance unit, where I stayed for three days. My feet were slightly blistered. I was very well looked after in every way, and returned to my squadron 5 days later.

NEW ROLE FOR TYPE 3 MINE

Evidence is at hand that the Japanese are not entirely satisfied with their newest antitank mine—the Type 3 pottery mine first recovered by U. S. troops on Leyte. The Japanese War Ministry has declared it unsuitable for antitank assaults, but reports it to be an effective antipersonnel mine.

This policy was applied on Iwo Jima where pottery mines were rigged with trip wires in antipersonnel minefields, and where the major antitank minefields were made with larger charges, such as antiboat mines and aerial bombs.

See the article on "The Human AT Mine" in this issue for a desperate alternative method of attacking tanks adopted by the Jap high command.



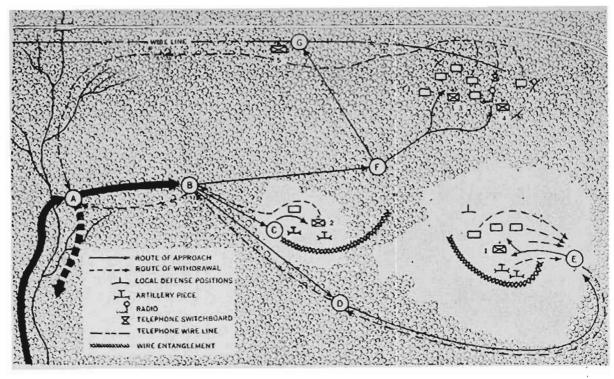
A JAP PLATOON RAID ON A BATTERY POSITION

A plan for a raid by a Jap infantry platoon, which had been given the mission of destroying a battery of artillery and its command post, illustrates typical Jap infiltration tactics. The plan is not only thorough, but serves as an excellent example of this type of enemy tactic.

A complete reconnaissance evidently had been made before the mission was assigned. The artillery pieces and the command post tents had been located, and also the wire entanglements and ground positions established for local defense. Similarly pinpointed and marked for destruction were the hostile battery's radio, a telephone switchboard, and the telephone wire line leading away from the artillery perimeter.

The infantry platoon selected to conduct the raid was divided into two units—an "Artillery Attack Unit" and a "Headquarters Attack Unit". The Artillery Attack Unit, in turn, consisted of two squads, and the Headquarters Attack Unit, of three. However, the exact size of these squads is not known.

According to the Japanese plan, the raiding platoon, having infiltrated the defending lines, would approach the objective area up the bank of a nearby river (see sketch on page 55). After reaching a designated point, A, near the river, the platoon would make its final preparation for the attack. Here unneces-



Plan for a Jup infuntry platoon raid on a battery of artillery. Except for the squad designations, the symbols are Japanese.

sary equipment would be left behind, and each man would be ordered to carry only the equipment necessary to the execution of his mission. Final instructions, including the information that the platoon would rally in that area once the mission had been accomplished, would be issued at point A.

From A the platoon would proceed to B, a position about 200 yards from the right flank of the target battery. Here the 1st and 2nd squads, which formed the Artillery Attack Unit, would leave the remainder of the platoon, and would proceed to their separate objectives. A glance at the sketch will show that the battery to be attacked was emplaced in two sections, and that the sections were separated by about 300 yards. This is a common practice of Japanese artillery, but one not often used by U. S. batteries. It is therefore possible that this plan may have originated during a Japanese maneuver, rather than in actual combat.

ARTILLERY ATTACK UNIT

Having left the remainder of the platoon, the 2nd squad, which was designated to attack the right-flank artillery section, would proceed to its attack-preparation position at C, just outside the end of the wire entanglement protecting the artillery. Meanwhile, the 1st squad would proceed to D, where a reconnaissance of the other artillery section would be made. The reconnaissance completed, the squad would continue to point E, its attack-preparation position, located about 50 yards to the left flank of the artillery, which was emplaced in a field of short grass.

HEADQUARTERS ATTACK UNIT

In the meantime, the headquarters attack unit would be infiltrating to F, midway between the gun positions and the command post. At F the 5th squad would leave the unit, and,

bypassing the command post area, would proceed to point G, on the telephone wire line near the road. The platoon leader would remain with the 3rd and 4th squads at F.

ATTACK AND WITHDRAWAL

Presumably the attack was to start at a prearranged time or signal. At such a time, the 5th squad would immediately cut the telephone wire, thereby preventing the battery from communicating with other units. Then all squads would attack their individual objectives—the 1st and 2nd squads destroying the guns, and the 3rd and 4th squads eliminating the command post, with its radio, switchboard, and key personnel.

Immediately after the attack, the members of the Artillery Attack Unit were to disperse in the brush and hide until they could make their way to their respective attack preparation positions. After all men had assembled, the squads would retrace their routes to the platoon rallying point at A.

Meanwhile the 3rd and 4th squads, having raided the command post, would rendezvous in the vicinity of the 5th squad's position at G, and then proceed by squads to the platoon rallying point. When all squads had reassembled at A, the platoon was to withdraw down the river.



A STUDY BY THE KWANTUNG ARMY

During large-scale maneuvers in Manchuria, the Kwantung Army—one of the enemy's most highly trained and experienced units—experimented elaborately with the use of smoke in offensive operations. When the air had cleared, and the last blank round had been fired, Jap officer observers seemed surprised to find that their experiment had succeeded beyond their first expectations.

Smoke as a weapon has not been used extensively by the Japanese, although they are fully equipped for this type of warfare. Apparently they held the Manchurian maneuvers to study the effectiveness of smoke candles used to conceal the movements of front-line troops, and the ability of artillery to blind hostile observation posts with well-placed smoke shells.

However, besides blinding the defending troops, and making it impossible for artillery and heavy weapons to fire anything but direct fire, the smoke produced a strange psychological effect among the "enemy" under attack. The smoke created a feeling of isolation and uneasiness among the defenders. The Japanese reported that distances seemed enlarged, and the movements of the attacking foot troops appeared elusive and "created illusions in the defender". The normal rate of defensive fire was decreased 25 to 50 percent, and it was discovered that troops subjected to heavy smoke for a period of 30 minutes or longer were forced to use their gas masks. Soldiers who did not wear their masks suffered headaches, sneezing, vomiting, sore throats, and respiratory ailments.

A result of the maneuvers was a series of recommendations for the employment of smoke in offensive operations. The Kwantung Japs concluded that the proper use of smoke on a large scale enabled infantrymen to come to grips with a defending enemy, and to penetrate his positions, against a minimum of defensive fire.

A critique of the maneuver recommended that in conducting such attacks, troops should take advantage of the range and accuracy of artillery to lay smoke concentrations on the enemy's lines. Besides smoke, mortar fire should be used to harass lines of communication and command posts, and to neutralize observation posts and defensive weapons positions—particularly those which could deliver flanking fire into the attacking troops.

At the same time, the infantry should lay its own smoke screen, the critique pointed out. It was mentioned that infantry might find it necessary to lay smoke in depth through a portion of the enemy's lines, or to lay a strong blinding concentration upon a specific part of his defenses. Presumably, smoke mortars and smoke grenade dischargers would be used, in addition to smoke pots and candles.

Following the thought emphasized in Japanese training manuals, the critique touched on the necessity for studying and exploiting wind conditions, the advantages of having several plans for discharging and distributing smoke, and the benefits and of "following to the letter" any plan selected.

The Japanese evidently decided that actual assault operations should be conducted under independent battalion control, or even company control, with the battalion or company commander maintaining artillery coordination and establishing the phase lines. Before such an attack, the battalion or company would be divided into small task units, and each unit assigned a specific weapon position or strongpoint to attack. Similarly, it was recommended that a special task unit be organized to operate under the direct command of the battalion or company commander. Such a special unit, if not committed to reducing a particularly critical strongpoint, would then be used to oppose any unanticipated weapon positions or troop concentrations that might be encountered once the attack was under way.

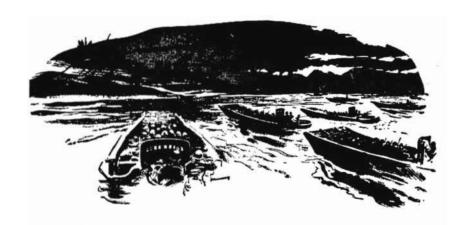
If a Japanese battalion or company were to conduct a smoke-infantry attack as outlined by the Kwantung observers, the attacking force would be divided into two or more waves before the assault. The first wave, composed of the task units, would engage designated hostile weapons positions. If these strong-points were not reduced by the time the second wave reached the enemy lines, the second wave would leapfrog through the wave of task units and force a penetration to the enemy rear. Occasionally a "mop-up unit" might follow the second-wave troops, and take over the mission of cleaning out isolated strong-points left behind by the momentum of the attack, but still active. Heavy weapons also will follow close on the heels of the attacking waves of infantry.

Whenever possible, such an attack will strike from the flank, with the attacking troops making the most of the concealment provided by the smoke. As the defender's final protective line of fire is approached, the attacking troops will advance by rushes and by crawling. Every effort will be made to discover and use defiladed terrain features, or other soft spots in the defensive fire pattern, where attacking troops may move through

the final protective line. Once the line of fire has been pierced, the task units will charge the weapon positions. As the second wave, and other rear units, pass through the final protective line, they will likewise be prepared to engage in hand-to-hand fighting. Because heavy weapons are expected to follow closely behind the assault, they have the mission of breaking any remaining enemy resistance, as soon as the smoke clears.

According to the Kwantung observers, such a large-scale use of smoke offers distinct advantages in furthering an infantry attack. Smoke, they said, is a deceptive weapon that can be employed at any time and place. It can neutralize hostile defensive fire, especially in rolling terrain, and can create in the opposing troops a sense of isolation, insecurity, and fear. The movements of the attacking troops are unrestricted and deceptive, and the speed of a break-through is increased. The use of smoke is also recommended as increasing the opportunities for hand-to-hand combat.

The observers did not fail to note, however, that offensive smoke has certain disadvantages for the troops who use it. Although it may blind the enemy, smoke also blots out hostile terrain and hides the movements of defending troops. And since smoke alone will not destroy an enemy, it is only as good as the troops who use it as an aid in accomplishing a combat mission.



Japanese Counterlandings

Seaborne Attacks on Allied Beachheads

Recent operations indicate that the beachheads of Allied forces, now thrusting toward the heart of the Japanese Empire, may be subjected increasingly to Japanese seaborne counterattacks. Such ventures of course are entirely in line with the enemy's doctrine of employing the enveloping maneuver whenever possible.

The use of counterlandings by the Japanese must not be confused with the seaborne reinforcements for Japanese land garrisons in areas where Allied forces have landed and established beachheads. Whereas seaborne reinforcements are intended to land on some part of a coast free of Allied forces and then join the main Japanese forces, counterlandings are designed for immediate offensive action against our troops and are likely to take place within the Allied perimeter.

Although the Japs are capable of exploiting mobility, surprise, night action, and the opportunities for close combat in counterlanding operations, they are likely to be confronted with two major difficulties: the problem of ascertaining the precise locations of Allied troops and installations, and the necessity for operating in areas where Allied forces have both air and sea superiority.

Japanese doctrine prescribes that a seaborne counterlanding unit must undertake operations as soon as an Allied force attempts to establish a beachhead, even if a complete picture of the situation cannot be obtained. For the purpose of launching an immediate surprise attack against the Allied troops, and of seizing their strongpoints any key installations, counterlandings on the Allied landing beach itself are recommended. The Japanese counterlanding unit is supposed to get a fierce, sustained attack under way before Allied strength can be consolidated. Also, counterlandings may be made at times other than that of the original Allied landing, and against any portion of the Allied rear areas that can be reached from the sea. If the Japanese cannot eliminate a whole bridgehead, their next efforts are directed toward weakening it as much as possible.

ATTACK ON A BRIDGEHEAD

A Japanese force dispatched to eliminate an Allied bridgehead may consist of one or more counterlanding units. According to enemy doctrine, the basis of a counterlanding unit consists of elements of the infantry regiment, which can be used alone, or combined with other troops for larger-scale operations. In the past, units of varying sizes have been used, and in each instance the strength evidently has depended on the forces available and the missions to be performed.

Embarkation for a counterlanding operation takes place at night, and at a safe distance from the Allied forces. Either the

small boats organic to the counterattacking unit, or such craft as destroyers or small transports, may be used. If the latter types are involved, they carry or tow the landing craft of the counterlanding unit. Upon reaching the anchorage, the unit is unloaded rapidly from the ships, landing craft are assembled, the prescribed assault formation is assumed, and the advance to the beach is begun. On nearing the beach, the usual formation of boats-in-line ahead is changed to that of boats abreast by platoons, and the landing is made.

From the hour of embarkation until the hour when the landing craft begin moving toward the beach, communications usually are by naval signals. Urgent communication between landing craft may be made by Army signals. Air-ground communications, subject to the joint decision of the Army and Navy, normally is by flags or smoke candles.

The details of action ashore are presumed to have been worked out before the embarkation and are derived from previously prepared plans changed to fit the latest information concerning the Allies. On the beach the units are supposed to annihilate the defenders, making the maximum use of cold steel, and to destroy their equipment, ammunition, and fuel. The Japanese plan to complete the action by daybreak, but, if it is not, special measures are to be taken to prevent the Allies from taking full advantage of their superior strength in numbers and equipment; these appear to consist mainly in increasing the pressure against the enemy. The full details of how the unit is expected to operate on the shore are not clear, but such vagueness in instructions is typical of the Japanese. However, the tactics are likely to resemble those used in a Japanese night attack on land.

An enemy effort on Saipan, although not made "immediately following Allied landings," is roughly indicative of what a Japanese counterlanding can prove to be like in actual practice.

It was made about 1 hour before dawn on D plus 3, when the U. S. beachhead, in the Charan-Kanoa area, on the southwest coast, had been expanded to include domination of the southwestern section of the island. Twenty-five to 30 barges came south from Tanapag Harbor and attempted to land on the American beachhead. The counterlanding force was intercepted by American LCI (G)'s, which sank 13 or 14 troop-carrying barges and probably damaged others. (Beached barges examined later in this area were the standard Type "A" 49-foot barges known as Daihatsu. During at least three subsequent nights, the Japanese attempted similar attacks on a smaller scale but all were repulsed. On one known occasion, the enemy returned U. S. fire with 37-mm guns mounted on the landing barges.

A more recent Japanese attempt to eliminate a U. S. bridgehead occurred on Okinawa. During the night and early morning of 3-4 May, the enemy made four counterlandings with approximately 1,000 troops. Three of the counterlandings were undertaken on the west coast, and one on the east coast, near an airfield in our possession. In general, these landings were unsuccessful; the Japanese were broken up into small groups, and



Many Japs were killed on the reef or while swimming ashore.

many were killed on the reefs or while swimming ashore. Later, some of the Japanese who had landed on the east coast stated that their mission had been to destroy U. S. artillery and to join forces with the groups which had landed behind our lines on the west coast. The enemy troops were well equipped with 50-mm grenade dischargers, small arms, demolitions, and enough food to last at least a week.

In conjunction with these counterlandings, the Japanese carried out vigorous attempts at infiltration, patrolling, and air bombardment of our rear areas.

On 4 May enemy action was closely coordinated with that of the counterlanding forces that were being engaged in a U. S. corps' rear. Preceded by heavy artillery fire along the entire Corps front, which was especially concentrated on two U. S. infantry division zones, the enemy launched a large-scale counterattack on the left of one of these divisions and on the right of the other. An estimated enemy regiment with 12 to 15 supporting tanks was involved. Fighting was severe, but by 1030 hours the counterattack had been broken up, and the enemy forces were being destroyed systematically. Elements of the Japanese counterlanding forces also were being mopped up.

RAIDS ON A BRIDGEHEAD

For small-scale, seaborne operations against Allied shore positions, the Japanese have organized "amphibious assault and infiltration units" whose primary mission appears to be the attack by stealth of key objectives within the Allied perimeter, such as command posts, vehicles, guns, and supply dumps. The effective operating radius of these units is small, and they depend on secrecy and initial surprise to reach their objectives. The large quantity of explosives, Molotov cocktails, and hand grenades—as well as the rafts, small cargo tubes, and water-proof bags—issued to these companies indicate the methods

that they are to employ to accomplish their missions. Operations undertaken by units of this type do not aim at the elimination of an entire beachhead—which is the basic mission of the larger organizations—but simply at its progressive disorganization and weakening, to make it more vulnerable to the main attacks from land or sea or from both directions at once.

One "amphibious assault and infiltration unit" appears to consist of a 180-man company divided into five platoons. The special title given this company, as well as its equipment and organization, indicates that such a unit may operate independently. The first platoon is especially trained in hand-to-hand combat, the second in infiltration, the third in amphibious assault, the fourth as a machine-gun platoon, and the fifth as a mortar platoon.

It should be noted that most Japanese efforts at counterlandings have suffered because the execution did not measure up to the doctrine, or was not even on a level with the plans laid for the operations themselves. Nevertheless, the existence and use of counterlanding units may properly be regarded as a threat to future Allied landings—especially in the early phases.



NEW NOTES ON 8-MM SUBMACHINE GUNS

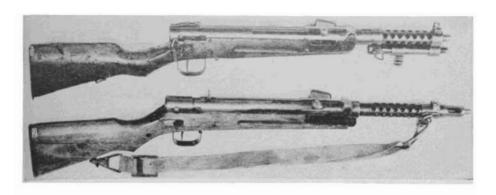
VERSIONS OF 8-MM SUBMACHINE GUN

Complete specimens of all three known versions of the Japanese Type 100 (1940) submachine gun are now in Allied The three versions thus far identified are: (1) the earliest version with removable bipod and bayonet; (2) the paratroop version, with removable bipod, bayonet, and folding stock; and (3) the latest version, with bayonet but no bipod. It was known prior to the capture in Burma of the earliest version that this unusual weapon was fitted with a bipod. Recovery of an actual specimen with bipod reveals that the bipod secures around the barrel jacket by means of a collar. The bipod locks to the tubing below the barrel jacket, thus providing a quickrelease feature. Inspection of the various guns shows that the paratroop version of the Type 100 can also take the bipod, and that the paratroop gun is identical to the earliest version except for the folding stock. No bipods have yet been reported as having been found on, or near, captured paratroop Type 100's.

Since the bipod is a most unusual addition, the appearance of the third version of the Type 100 without this feature was not at all surprising. This latest type of Type 100 (briefly described in *Tactical and Technical Trends*, No. 57) is fitted to take the standard Type 30 (1897) bayonet, in line with the official Japanese doctrine which urges fighting with cold steel.

AMMUNITION

Although preliminary tests indicated that Japanese 8-mm pistol ammunition would not function in a Japanese 8-mm



The paratroop version of the Type 100 submachine gun is identical with the ordinary model, except for a folding stock. Above is the paratroop version: below is the latest type.



The earliest version of the Type 100 3-mm submachine gun, with bipod.

Type 100 (1940) submachine gun, further tests now show that such use of the ammunition is entirely practical. In the first tests, caliber 8-mm pistol ammunition packaged for the Type 94 (1934) pistol functioned very badly when used in a later-model Type 100. Some 75 percent of the cases failed to extract, while others were badly bulged. However, tests with other Type 100 guns now show that the performance with ordinary Japanese pistol ammunition is entirely satisfactory. It is presumed that the Type 100 first tested was defective.

In spite of modification of the Type 100 series to the latest form, this type of submachine gun leaves much to be de-For one thing, it represents a manufacturing problem. The Japanese have made no effort to ease production bottlenecks by the extensive use of stampings throughout the weapon. They have manufactured a Bergmann-type gun, instead of one patterned after the mass-production German "burp gun," the Schmeisser M.P. 38 (1938). From the operational point of view, U. S. Army Ordnance tests indicate that its cyclic rate of 800 to 1,000 rounds per minute is too high for maximum effectiveness. U. S. Army findings in this respect are bolstered by the experience of other battle-tested armies. German submachine guns have a rate of fire around 500 rounds per minute. The Red Army, which in its P.P.D. (1940) and P.P.Sh. (1941) tommy guns had weapons with a 1,000-round per minute cyclic rate, later standardized on their M1943 submachine gun with a cyclic rate of 650 rounds per minute. In an effort to correct the drawbacks inherent in a high rate of fire, the Japanese have fitted a type of compensator to the latest version of their Type 100.

Camoufleurs, Please Note!

Neatest camouflage trick of the month on Okinawa: Jap troops were instructed "to deceive U. S. troops" by building



"naturally-sited" latrines near the entrances of hidden caves. According to the Jap who brainstormed this order, U. S. troops "thoroughly dislike these outhouses, which will cause them to avoid these areas."

Hara-Kiri With Rations and Quarters



One besieged Jap outfit eliminated its casualty evacuation problem in a characteristic manner. The commanding officer issued an order:

"Those in each unit who are wounded and sick, and are unwill carry two days rations to

able to engage in combat, will carry two days rations to the corner of the fortress and on or about the 21st will commit mass suicide.

"Each unit commanding officer will put a responsible man in charge to witness their deaths.

"Freedom of meditation for a day and a night will be granted prior to suicide so that each man may attain for himself the determination of gladly sacrificing himself for the country."